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ABSTRACT

This guide to Minnesota training resources for adults seeking new employment opportunities provides an overview of careers, wages, job availability, and necessary training. Occupations are described in these areas: medical careers; office professions; technical careers; art, writing, and media careers; service careers--food, hair, police; mechanic careers; precision machine crafts; construction careers; driving occupations; sales careers; careers needing 4 years of training; and jobs requiring no training. Information in each area is presented in a two-page format with eight columns listing the following: (1) job title and job duties; (2) number employed in the occupation; (3) salaries--low-range; (4) salaries--midrange; (5) growth rate; (6) job openings; (7) training needed; and (8) availability of jobs. Other sections contain the following: list of shrinking occupations and popular occupations with few job openings and growing occupations; detailed information about medical careers, computer careers, media careers, accounting, cosmetology, cooking, corrections, machine tool, printing, construction, drivers, and sales; discussion of whether training will result in a job or good pay; technical and community college addresses; majors and training programs at technical and community colleges; sources of short-term training; examples of customized training; and mature workers and employer expectations. An index is followed by a list of regional offices to call to find out qualifications for eligibility. (YLB)

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To FIND THE TOPICS YOU WANT
IN THIS BOOK, MATCH THESE
BARS TO BARS ON THE PAGES.

How to Use This Book

Medical Careers

Office Professions

Technical Careers

Art & Writing & Media

Service Occupations

Mechanic Careers

Precision Machine Crafts

Construction & Driving

Sales Careers

Survival Jobs: No Training

Cutting: Shrinking Fields

Expanding Fields

Computer Careers

Will Training Result In

A Job? Good Pay?

Tech & Community
College Addresses

Short Term Training

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Minnesota CAREER FOCUS

CAREERS & TRAINING:
A GUIDE FOR ADULTS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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ED 408 420

MINNESOTA CAREER FOCUS 1996



This publication is a guide to Minnesota training resources for adults seeking new employment opportunities. As the workplace of the 1990s continues to change, workers are challenged to learn new skills and abilities. Often individuals who have been dislocated from prior employment must explore career alternatives. The information in this booklet provides an overview of careers, wages, job availability and

training needed for employment. The reader will also find on page 80 a directory of dislocated worker agencies that serve persons who are seeking new jobs or new careers. Finally, this booklet lists other helpful information, such as training programs available at technical and community colleges.

—Minnesota Department of Economic Security—
—Dislocated Worker Program—

Minnesota Career FOCUS 1996 was prepared for:
Minnesota's Dislocated Worker Programs
Jim Korkki, Director

Many counselors and support people who work with dislocated workers contributed to the development of FOCUS. A special thanks to three people whose contribution was especially significant:

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HOW TO USE MINNESOTA CAREER FOCUS

JOB TITLE & DUTIES

In this column, *Minnesota Career FOCUS* provides you with the job title & job duties for each of the 200 common occupations on the following 40 pages.

SIZE OF OCCUPATION

In this column, *FOCUS* tells you how many paying jobs exist in Minnesota in each of the 200 occupations on the next 40 pages; that is, how big each occupation was in 1993.

SALARIES - LOW-RANGE

FOCUS gives you a low-range salary figure for each occupation on the next 40 pages. Nine out of ten workers in the occupation earn at least this amount per hour (1994).

SALARIES - MID-RANGE

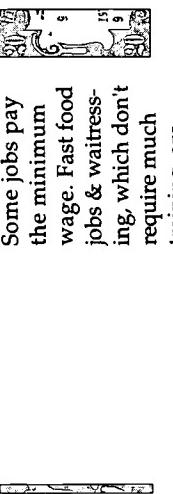
In this column, *FOCUS* gives you a mid-range salary figure on the following 40 pages. Half of the workers in the occupation earn at least this amount per hour (1994).

Some occupations have a very complicated set of duties, such as "General Manager" (the head of a large organization). A manager's job usually carries an enormous amount of responsibility, involves difficult decision-making, and requires 50-80 hours of work per week, without extra pay. Many of these jobs are rewarded with high pay, of course.

Some occupations are very large. Example: 51,000 people work as secretaries in Minnesota, making it one of the largest occupations.



Other occupations have simple duties that are easy to understand and perform, and don't require high-level decisions or risk.



In some occupations almost all the workers get paid above \$10 per hour. Example: Nine out of ten registered nurses earn over \$13.90 per hour.

Some jobs pay the minimum wage. Fast food jobs & waitressing, which don't require much training, are likely to pay about \$4.25/hr.



In some occupations, the mid-range salary can be over \$20/hr. Some examples: Physicians: \$56 Lawyers: \$26 Gen'l Mgrs: \$25 Electrical Engineers: \$23.



For some jobs, the mid-range salary might never be much higher than the low-end salary. Some examples: Fast food: \$8.10 Cashiers: \$5.50.



The average mid-range pay: If we average* the low-range pay for all occupations, from doctors (\$33/hr.) to fast food cooks (\$4.40/hr.), the average we get is about \$8.40 per hour.



The average low-range pay: If we average* the low-range pay for all occupations, from doctors (\$33/hr.) to fast food cooks (\$4.40/hr.), the average we get is about \$12 per hour.



**Weighted average of the 50th percentile (half earn less, half earn more) for all occupations in the *Minnesota Salary Survey 1994*.



We've taken most of our salary information from the *Minnesota Employment Outlook to 2001*, which is developed by our agency, the Research and Statistics Office of the Minnesota Department of Economic Security, 612-296-6545.

SALARIES - HIGH-RANGE

FOCUS gives you a high-range salary figure for each occupation on the next 40 pages. One worker in the occupation earns at least this amount per hour (1994).

Some occupations are very small. Example: There are only 230 motorcycle mechanics who have paying jobs in Minnesota.



The average size of the occupations that we look at in this booklet is about 5,000 workers.



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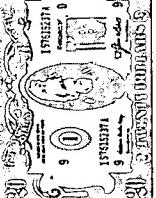
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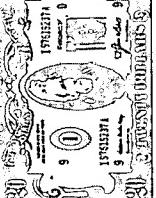
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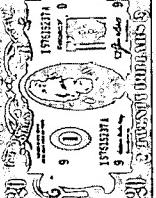
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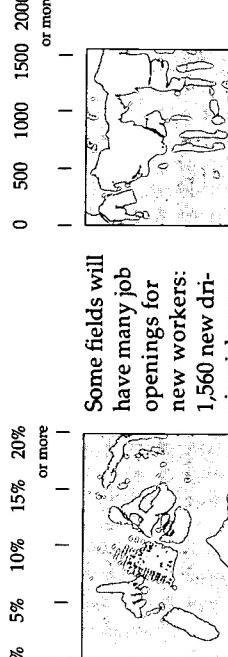
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HOW YOU CAN SEE THE TYPES OF INFORMATION LISTED ON THE NEXT 40 PAGES

GROWTH RATE

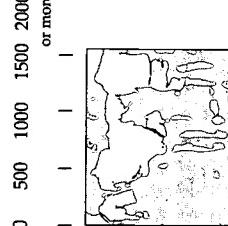
Minnesota Career FOCUS tells you in this column how fast each occupation is growing, that is, the percent increase from 1993 to 2001 or the rate at which new jobs are being created.



Some fields are growing quickly. From 1993 to 2001, we will need 69% more human services workers, 67% more computer engineers, systems analysts, and 65% more farmers.

JOB OPENINGS

FOCUS lists the average number of job openings per year that are available for new workers in each occupation till 2001—*new jobs plus jobs available due to retirements, deaths, etc.*



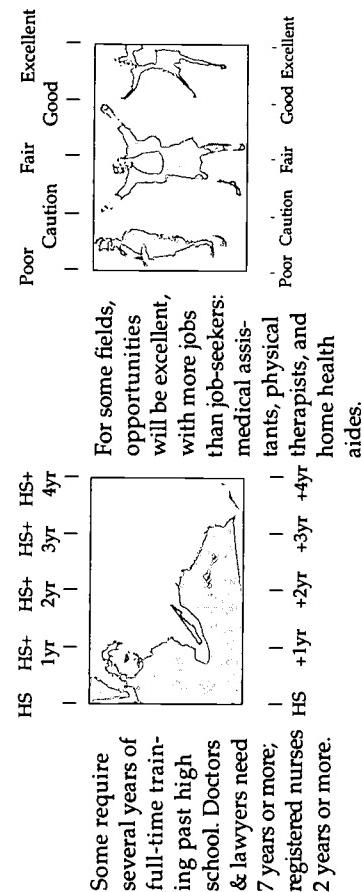
Some fields are actually getting smaller from 1993 to 2001: 22% fewer computer operators, 18% fewer telephone equipment repairers, & 10% fewer farmers.



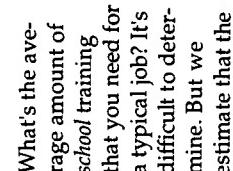
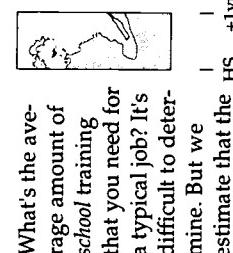
The average rate of growth of all occupations in Minnesota between 1993 and 2001 is predicted to be around 12.6%. In other words, if an occupation has 1000 workers in 1993, we are predicting that it will have 126 actual new jobs by 2001, as a result of growth.

TRAINING NEEDED

In this column, *FOCUS* tells you how many years of full-time training are generally needed to enter each of the occupations on the next 40 pages.

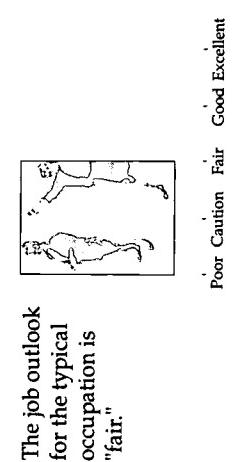
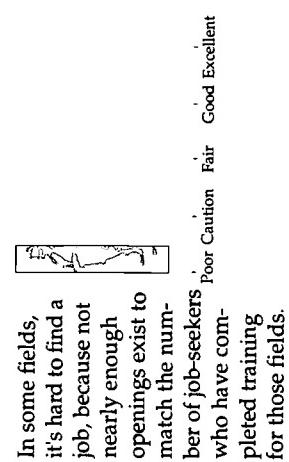
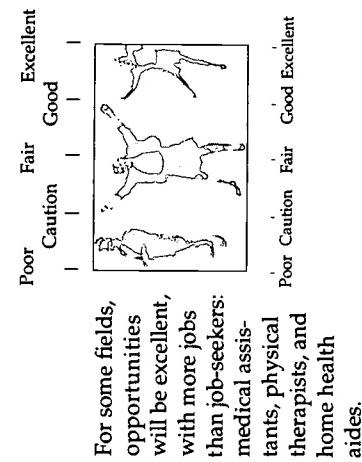


Some fields require only high school graduation (sometimes even less). For example, packagers in



AVAILABILITY OF JOBS

FOCUS tries to answer the following questions in this column: What is the job market like for these occupations? How easy is it to find jobs? What does the future hold?



We have taken most of our information on growth rates of occupations from *Minnesota Employment Outlook to 2001*, which is developed and produced by our agency, the Research and Statistics Office of the Minn. Dep't. of Economic Security, 612-296-6545.

Again, we have taken most of our information for future job openings in occupations from *Minnesota Employment Outlook to 2001*.

We have taken most of our information on training requirements from our own surveys and from the Minnesota Career Information System (MCIS), which is operated by the Minnesota Department of Children, Families, and Learning.

Our statements about job availability are based on information that we gathered in surveys completed during the fall of 1995:

- ◆ Survey of more than 300 professional and business associations.
- ◆ Survey of more than 300 labor organizations.
- ◆ Survey of all 4-year colleges, technical colleges, and community colleges with over 500 students.

MEDICAL CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

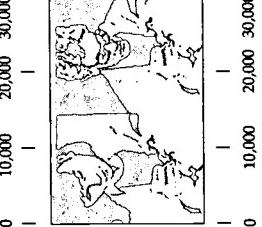
REGISTERED NURSE

RN's perform professional nursing services in the treatment and care of patients.

See more on page 50.

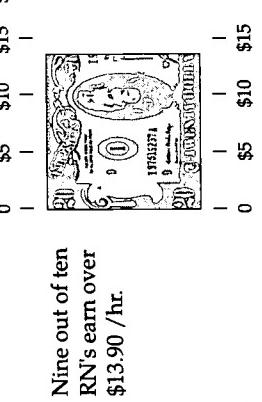
SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).



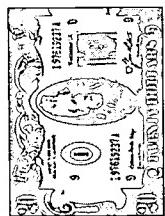
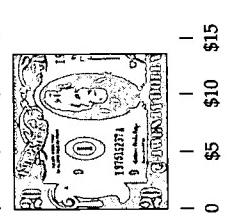
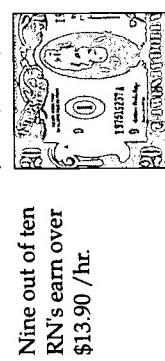
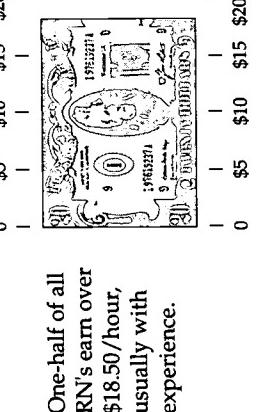
SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).



SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).



LICENSED PRACTICAL NURSE (or Clinical Lab Tech)

LPN's care for patients who are less than acutely ill. Also care for convalescent and chronic patients. Assist registered nurse in the care of the more acutely ill.

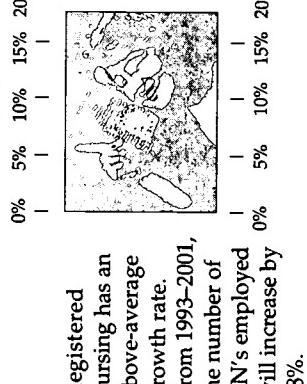
See more on page 50.



MORE ABOUT HEALTH FIELDS ON PAGE 50

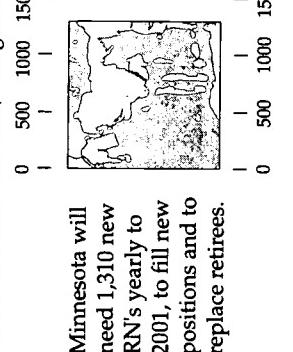
GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



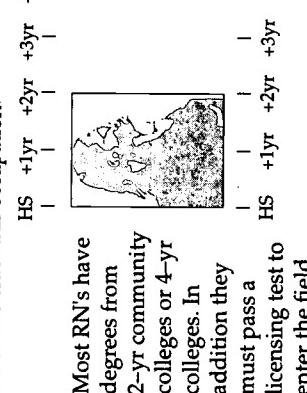
JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)



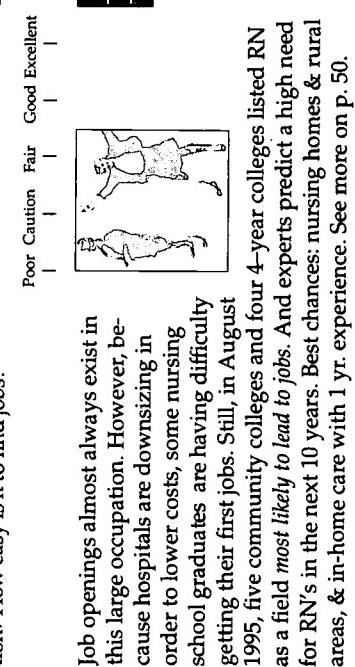
TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

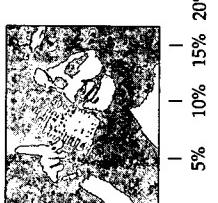


AVAILABILITY OF JOBS

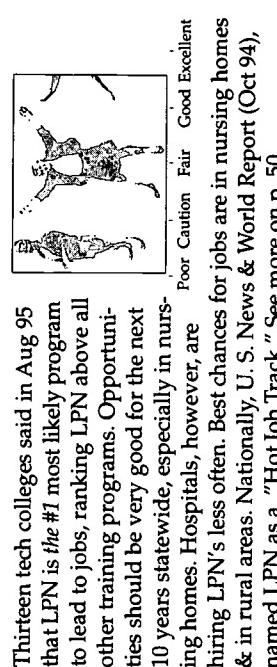
What is the job market like for this occupation? How easy is it to find jobs?



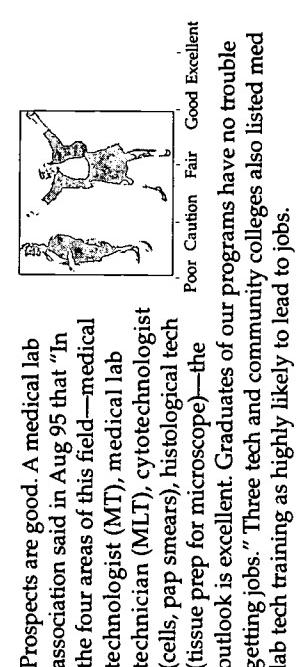
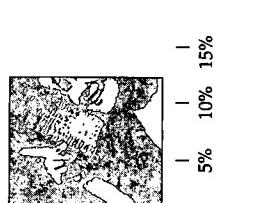
Medical lab work has an average growth rate. From 1993 to 2001, the number of medical lab techs employed will increase by 12%.



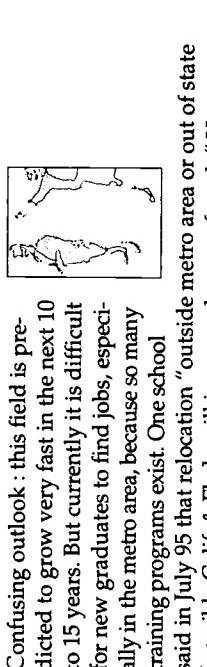
Most training programs for LPN's take 9-12 months to complete at public tech colleges. In addition LPN's must pass a licensing test to enter the field.



Radiology is a field growing at a very fast rate. From 1993-2001, the number of radiologists employed will increase 31%.



Confusing outlook : this field is predicted to grow very fast in the next 10 to 15 years. But currently it is difficult for new graduates to find jobs, especially in the metro area, because so many training programs exist. One school said in July 95 that relocation "outside metro area or out of state [possibly Calif. & Fla.]...will increase chances of work." However, the long-term outlook is good because of the aging population & increased use of radiology in the treatment of cancer.



MEDICAL CAREERS

JOB TITLE & DUTIES
What kind of work do the people in this occupation do on the job.

SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

Nine out of ten workers in this occupation earn at least this amount per hour (1994).
Half of the workers in this occupation earn at least this amount per hour (1994).

MEDICAL ASSISTANT
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.

DENTAL HYGIENIST
Perform dental prophylactic treatments and instruct groups and individuals in care of the teeth and mouth.

DENTAL ASSISTANT
Assist dentist at chair, set up patient and equipment, keep records, & perform related duties as required.

OPTICIAN:
Dispensing & Measuring
Design, measure, fit, and adapt lenses and frames for clients according to written optical prescription or specification.

SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).
Half of the workers in this occupation earn at least this amount per hour (1994).

	0	10,000	20,000	30,000+					\$5	\$10	\$15	\$20+
1,970 people work as medical assistants in Minnesota.	0	1	1	1	0	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	0	1	1	1
MEDICAL ASSISTANT	0	1	1	1	0	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	0	1	1	1
DENTAL HYGIENIST	0	1	1	1	0	1	1	1	0	1	1	1
Assist dentist at chair, set up patient and equipment, keep records, & perform related duties as required.	0	1	1	1	0	1	1	1	0	1	1	1
OPTICIAN: Dispensing & Measuring Design, measure, fit, and adapt lenses and frames for clients according to written optical prescription or specification.	0	1	1	1	0	1	1	1	0	1	1	1

Nine out of ten workers in this occupation earn at least this amount per hour (1994).
Half of the workers in this occupation earn at least this amount per hour (1994).

	0	10,000	20,000							\$5	\$10	\$15	\$20+
1,970 people work as medical assistants in Minnesota.	0	1	1	1	0	1	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	1	0	1	1	1
MEDICAL ASSISTANT	0	1	1	1	0	1	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	1	0	1	1	1
DENTAL HYGIENIST	0	1	1	1	0	1	1	1	1	0	1	1	1
Assist dentist at chair, set up patient and equipment, keep records, & perform related duties as required.	0	1	1	1	0	1	1	1	1	0	1	1	1
OPTICIAN: Dispensing & Measuring Design, measure, fit, and adapt lenses and frames for clients according to written optical prescription or specification.	0	1	1	1	0	1	1	1	1	0	1	1	1

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	0	10,000	20,000							\$5	\$10	\$15	\$20+
1,970 people work as medical assistants in Minnesota.	0	1	1	1	0	1	1	1	1	0	1	1	1
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MEDICAL ASSISTANT	0	1	1	1	0	1	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	1	0	1	1	1
DENTAL HYGIENIST	0	1	1	1	0	1	1	1	1	0	1	1	1
Assist dentist at chair, set up patient and equipment, keep records, & perform related duties as required.	0	1	1	1	0	1	1	1	1	0	1	1	1
OPTICIAN: Dispensing & Measuring Design, measure, fit, and adapt lenses and frames for clients according to written optical prescription or specification.	0	1	1	1	0	1	1	1	1	0	1	1	1

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1,970 people work as medical assistants in Minnesota.	0	1	1	1	0	1	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	1	0	1	1	1
MEDICAL ASSISTANT	0	1	1	1	0	1	1	1	1	0	1	1	1
Performs various duties under the direction of physician in examination & treatment of patients. Prepares treatment room, checks supplies & instruments, & sets up patient for attention of physician. Handles instruments & materials.	0	1	1	1	0	1	1	1	1	0	1	1	1
DENTAL HYGIENIST	0	1	1	1	0	1	1	1	1	0	1	1	1
Assist dentist at chair, set up patient and equipment, keep records, & perform related duties as required.	0	1	1	1	0	1	1	1	1	0	1	1	1
OPTICIAN: Dispensing & Measuring Design, measure, fit, and adapt lenses and frames for clients according to written optical prescription or specification.	0	1	1	1	0	1	1	1	1	0	1	1	1

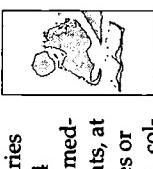
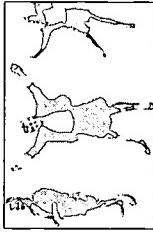
MORE ABOUT HEALTH FIELDS ON PAGE 50

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



The medical assistant occupation has a very fast growth rate. From 1993 to 2001, the number employed will increase by 35%.



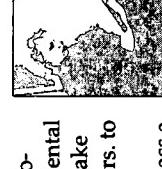
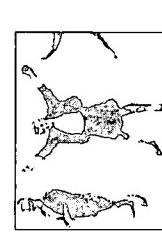
JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001).



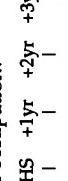
Dental hygiene is a field growing at an above-average rate. From 1993-2001, the number of dental hygienists employed will increase 22%.

Dental assisting is a field growing at an above-average rate. From 1993-2001, the number of dental assistants employed will increase 19%.



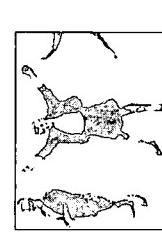
TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?



Minnesota will need 110 new medical assistants yearly to 2001, to fill new positions and to replace retirees. Some med assistants are trained on-the-job.

Training programs for dental hygienists take 2 yrs. or 4 yrs. to complete. Must also pass a licensing test.

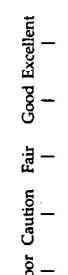


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AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?



Excellent prospects for medical assistants who have experience and school training. In Minnesota this occupation is growing very fast from 1993 to 2001. Nationally, U.S. News & World Report magazine (Oct 94), named Medical Assistant as one of its predicted "20 Hot Job Tracks," suggesting it is a field which will have a high demand in the future. One drawback: low salaries.

Job availability will be good for the next 3 or 4 years. In 5 to 8 years, job prospects may decrease, because school programs are expected to produce more graduates, but the outlook will still be good. The Star Tribune in Nov 95 said there's a "continuing shortage of hygienists....Demand is up." But there's a "hygienist assin. said in July 95, "we wouldn't say full-time jobs are plentiful....Many jobs are part-time, 2-3 days per week. Some hygienists take 2 jobs & sacrifice health insurance, vacation, sick leave."

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Opportunities should be very good. Because there will be increased demand for dental services, dentists are expected to hire more assistants to perform routine tasks. Four tech & community colleges list *dental assistant* as a field most likely to lead to jobs. Many jobs are part-time, 2-3 days per week. Some hygienists take 2 jobs & sacrifice health insurance, vacation, sick leave.

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Opportunities should be very good. Graduates of optical training programs will be in demand. Some comments from schools: ♦ Very good field, due to the aging population: older people are more likely to need glasses. ♦ Good chances for jobs. ♦ Students need to know more about the optical field, because it is very good. One tech college lists *optician* as very likely to lead to jobs.

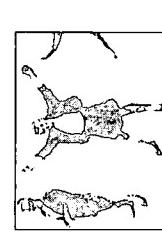
OPTICIANS

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



Optician work is a field growing at an average rate. From 1993 to 2001, the number of opticians employed will increase 14%.

Minnesota will need 80 new opticians yearly to 2001, to fill new positions and to replace retirees.



CAREERS

Medical



Medical

Excellent prospects for medical assistants who have experience and school training. In Minnesota this occupation is growing very fast from 1993 to 2001. Nationally, U.S. News & World Report magazine (Oct 94), named Medical Assistant as one of its predicted "20 Hot Job Tracks," suggesting it is a field which will have a high demand in the future. One drawback: low salaries.

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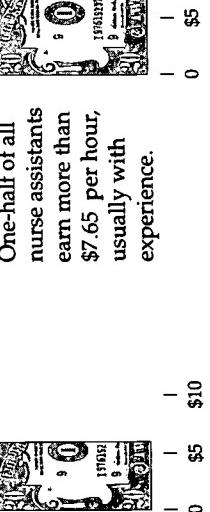
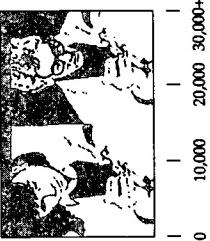
MEDICAL CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

NURSE ASSISTANT

Perform medical care duties such as answering patient's bell call, serving & collecting food trays, feeding patients, setting up equipment. Work under the direction of nursing staff.



SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

Over 30,390 people work as nurse assistants or orderlies in Minnesota.



SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).



SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).



SALARIES - HIGH RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).



CAREERS

Half of the workers in this occupation earn at least this amount per hour (1994).



HOME HEALTH AIDE

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



HEALTH THERAPISTS

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



HEALTH CARE MAINTENANCE WORKERS

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



HEALTH TECHNICIANS

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



HEALTH SERVICE AIDS & ATTENDANTS

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Medical Careers

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Medical Record Technologists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Physical Therapists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Recreational Therapists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Respiratory Therapists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Speech Pathologists & Audiologists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Surgical Technologists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Emergency Medical Technicians

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Physician Assistants

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



EKG Technicians

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Psychiatric Aides

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Physical & Corrective Therapy Assistants

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Occupational Therapy Assistants

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Ambulance Drivers & Attendants

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Pharmacy Assistants

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Medical Record Technologists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Physical Therapists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Recreational Therapists

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Respiratory Therapists

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Pharmacy Assistants

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Medical Record Technologists

Nine out of ten home health aides in Minnesota earn over \$6.00 per hour.



Physical Therapists

Nine out of ten home health aides in Minnesota

OFFICE CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

ACCOUNTANTS/ AUDITORS

Accountants examine & analyze accounting records in order to give advice or to prepare statements. Also install or advise about financial systems which record costs & budgetary data.

PURCHASING AGENT

& BUYER Purchasing agents buy equipment and supplies necessary for the operation of a company, an organization, or a factory. Wholesale & retail buyers purchase merchandise or commodities for resale to consumers.

PERSONNEL SPECIALISTS &

EMPLOYMENT INTERVIEWERS

Personnel specialists recruit, select, train employees, and may be involved in promotion, safety, compensation. Employment interviewers interview job seekers in an employment referral office and refer them to possible employers.

FOOD & LODGING

MANAGER

Food service & hotel/motel managers plan, organize, direct, control, or coordinate management activities of an organization that serves food & beverages &/or provides lodging & other accommodations.

SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+	
20,670 people work as accountants & auditors in Minnesota.	0	1	1	1	
Nine out of ten accountants & auditors earn over \$11.25/hr. (Robert Half Co. also does a survey that details national pay for specific specialties in account.)	0	1	1	1	
10,000 20,000 30,000+ national pay for specific specialties in account.)	0	1	1	1	

SALARIES - LOW RANGE

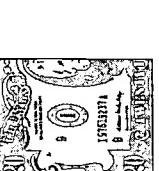
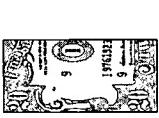
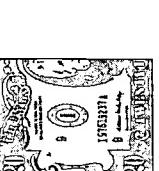
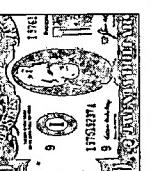
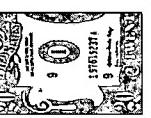
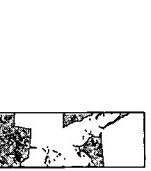
Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
10,000 20,000 30,000+ national pay for specific specialties in account.)	0	1	1	1	1
Nine out of ten accountants & auditors earn over \$11.25/hr. (Robert Half Co. also does a survey that details national pay for specific specialties in account.)	0	1	1	1	1
10,000 20,000 30,000+ national pay for specific specialties in account.)	0	1	1	1	1

SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
10,000 20,000 30,000+ national pay for specific specialties in account.)	0	1	1	1	1
Nine out of ten accountants & auditors earn over \$11.25/hr. (Robert Half Co. also does a survey that details national pay for specific specialties in account.)	0	1	1	1	1
10,000 20,000 30,000+ national pay for specific specialties in account.)	0	1	1	1	1



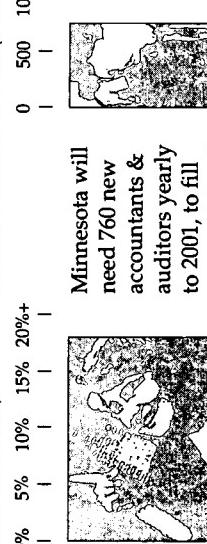
ENHANCE YOUR SKILLS IN THESE FIELDS WITH SHORT-TERM TRAINING.

SEE PAGES 68-72.

13

GROWTH RATE

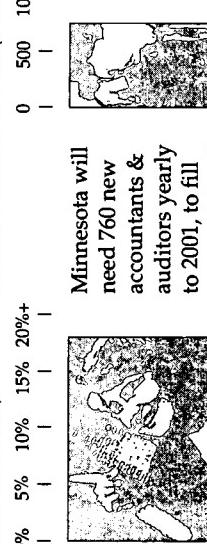
How fast this occupation is growing.
(Percent increase from 1993 to 2001).



Accounting & auditing are fields that have above-average growth rates. From 1993-2001, the number of accountants employed will increase by 18%.

JOB OPENINGS

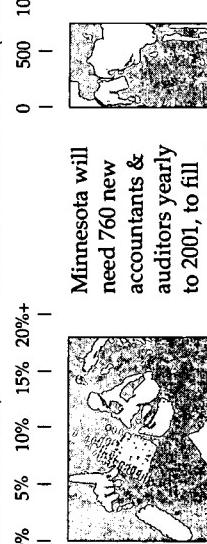
How many job openings per year will be available for new workers (average till 2001)



Minnesota will need 760 new accountants & auditors yearly to 2001, to fill new positions and to replace retirees.

TRAINING NEEDED

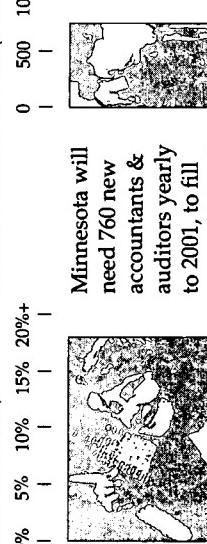
How much full-time training is generally needed to enter this occupation?



Most employers require a 4-yr college degree in accounting; some require master's. CPA's must pass tests. Chances for 2-yr degrees better outside Twin Cities area.

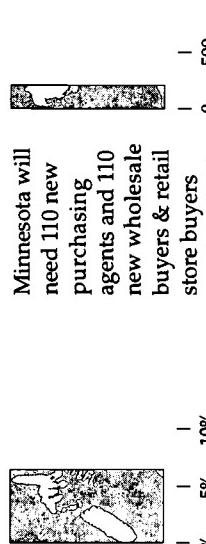
AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?



Very good outlook for 4-year graduates in accounting (ranked as the #1 major for job-getting by 4-year colleges), but quite a bit lower prospects for those with 2-year degrees. An accounting assn. says, "You really need four years training minimum nowadays. The profession is so much more complicated now—always new pronouncements, new tax laws, new ways businesses are operated, how businesses are organized, etc." Demand for cost accounting & internal auditing. See more, p. 54.

Purchasing is a field growing at a below-average rate of 5% from 1993-2001. Wholesale & retail buying is growing at an average rate of 8%.

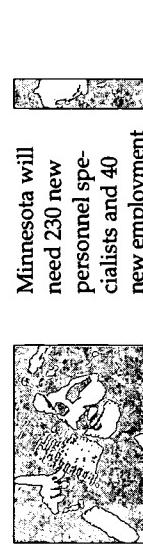


Minnesota will need 110 new purchasing agents and 110 new wholesale buyers & retail store buyers yearly to 2001, to fill new positions.

Purchasing agents need a 4-yr degree in business or a 2-yr degree in purchasing at a community or tech college. Buyer is not an entry level job. Most start as assistant buyers. To fill ast. buyer positions, some cos. promote from within; some recruit college grads.

Decreasing prospects, due to the consolidation of buying departments resulting from mergers & due to increased use of automated systems. Best chances with a 4-year degree in business. Purchasing: A long-term decrease in job prospects. Low demand. Small companies will provide most jobs. Buying: More job-seekers than jobs, because many college grads are interested in buying. Persons with whole-sale or retail experience, plus a degree, have best chances.

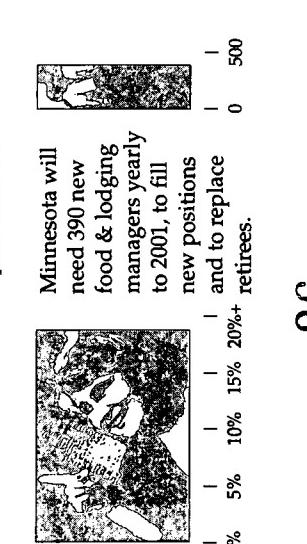
From 1993-2001, personnel has an above-average growth rate of 24%. Employment interviewing has an average growth rate of 15%.



Minnesota will need 230 new personnel specialists and 40 new employment interviewers yearly to 2001, to fill new positions and to replace retirees.

Personnel jobs require 4-yr degree in personnel or labor relations, maybe lib. arts. Interviewer jobs usually require 4-5 yrs., but temporary agencies may look at sales ability.

Food & lodging management has an above-average growth rate. From 1993 to 2001, the number of food & lodging mgrs. employed will increase 19%.



3) 2 yr. degree + experience.

2) 4-yr. degree in food/hotel mgmt; or

1) Extensive, progressive food/hotel experience;

These are large occupations with high growth rates.

26

OFFICE CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

LOAN OFFICER AND COUNSELOR

Evaluate & authorize applications for commercial or real estate loans and credit loans, or advise borrowers on financial status and methods of payments.



SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+	
5,830 people are employed as loan officers in Minnesota.	0	1	1	1	
	10,000	20,000	30,000+		



Nine out of ten loan officers earn over \$11.98/hr.

10,000

SALARIES - MID RANGE SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
One-half of all loan officers earn over \$16.75 per hour, usually with experience.	0	1	1	1	1
	\$5	\$10	\$15	\$20+	



One-half of all loan officers earn over \$16.75 per hour, usually with experience.

16.75

SALARIES - MID RANGE SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
One-half of all insurance adjusters earn over \$14.94 per hour, usually with experience.	0	1	1	1	1
	\$5	\$10	\$15	\$20+	



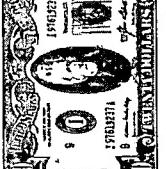
One-half of all insurance adjusters earn over \$14.94 per hour, usually with experience.

14.94

SALARIES - HIGH RANGE SALARIES - MID RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
One-half of all insurance underwriters earn over \$17.74/hr., usually with experience.	0	1	1	1	1
	\$5	\$10	\$15	\$20+	



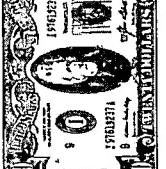
One-half of all insurance underwriters earn over \$17.74/hr., usually with experience.

17.74

SALARIES - HIGH RANGE SALARIES - HIGH RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
One-half of all paralegals earn over \$15.90/hr., usually with experience.	0	1	1	1	1
	\$5	\$10	\$15	\$20+	



One-half of all paralegals earn over \$15.90/hr., usually with experience.

15.90

SALARIES - HIGH RANGE SALARIES - HIGH RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
One-half of all paralegals earn over \$15.90/hr., usually with experience.	0	1	1	1	1
	\$5	\$10	\$15	\$20+	



One-half of all paralegals earn over \$15.90/hr., usually with experience.

15.90

ENHANCE YOUR SKILLS IN THESE FIELDS WITH SHORT-TERM TRAINING.

SEE PAGES 68-72.

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).

	0%	5%	10%	15%	20%+	
Loan officer	-	-	-	-	-	0

Loan officer work has an above-average growth rate. From 1993-2001, the number of loan officers employed will increase by 20%.



JOB OPENINGS						
How many job openings per year will be available for new workers (average till 2001)						
	0	500	1000	1500	2000+	
Loan officer	0	-	-	-	-	-

Minnesota will need 220 new loan officers yearly to 2001, to fill new positions and to replace retirees.

	0%	5%	10%	15%	20%+	
Loan officer	0	-	-	-	-	-

Insurance adjusting has a very fast growth rate. From 1993-2001, the number of insurance adjusters employed will increase by 28%.



	0%	5%	10%	15%	20%+	
Insurance adjuster	0	-	-	-	-	-

Minnesota will need 130 new insurance adjusters yearly to 2001, to fill new positions and to replace retirees.

	0%	5%	10%	15%	20%+	
Insurance adjuster	0	-	-	-	-	-

Underwriter and claim examiner work has an average growth rate. From 1993 to 2001, the no. of claims examiners & underwriters will increase by 12%.

	0%	5%	10%	15%	20%+	
Underwriter and claim examiner	0	-	-	-	-	-

Minnesota will need 70 new insurance underwriters and 20 new claim examiners yearly to 2001, to fill new positions and to replace retirees.

	0%	5%	10%	15%	20%+	
Underwriter and claim examiner	0	-	-	-	-	-

Paralegal is a field that's growing much faster than average. From 1993-2001, the number employed will increase 47%.

	0%	5%	10%	15%	20%+	
Paralegal	0	-	-	-	-	-

Despite the fast growth rate, Minnesota will need only 100 new paralegals yearly to 2001, to fill new positions and to replace retirees.

	0%	5%	10%	15%	20%+	
Paralegal	0	-	-	-	-	-

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

	HS	+1yr	+2yr	+3yr	+4yr	
Loan officer	0	-	-	-	-	-

Many employers require 2-yr or 4-yr degree; prefer major in business, finance, banking, or accounting, but lib. arts is possible. Or experience in finance or collection agency.

Most employers require 4-yr degree, with courses in business, law, medicine. Others hire those knowing auto repair, building construction, medical information.

Minnesota will need 130 new insurance adjusters yearly to 2001, to fill new positions and to replace retirees.

Most employers require 4-year degree, in business or lib. arts. Others consider 2-yr degrees in insurance field. Some promote from clerical positions within the insurance co.

Minnesota will need 70 new insurance underwriters and 20 new claim examiners yearly to 2001, to fill new positions and to replace retirees.

Despite the fast growth rate, Minnesota will need only 100 new paralegals yearly to 2001, to fill new positions and to replace retirees.

Paralegal is a field that's growing much faster than average. From 1993-2001, the number employed will increase 47%.

Three big factors are affecting the demand for loan officers: ◆ Lower interest rates in mid-1995 are causing more loan activity, and this produces more jobs for loan officers (conversely, high interest rates means fewer jobs).

◆ But multiple bank mergers & acquisitions are resulting in the elimination of many positions in local banks. ◆ And large banks are automating loans so that customers apply by phone, again requiring fewer loan officers. Still, several banks say the outlook is fairly good.

Opportunities should be fair to good. One large insurance company says that although there are not a lot of adjusters in Minnesota, their company's definitely increased hiring. But they also say that the job market for adjusters is "not bad, but not ideal either.... middle or a little above middle." They state that to enhance chances of obtaining a job, a person could come out of college with coursework in insurance & belong to an insurance fraternity.

Fair chances for employment. Most jobs are in the Twin Cities, although at least one large insurance co. has laid off hundreds of employees in the recent past. Two other large companies indicate that most underwriter & examiner positions are filled from within their cos., because employees (many with college degrees) start in clerical jobs & move up. One company said that the job market is static, and expects this to continue into the future.

Although the number of new jobs is increasing very fast, so is the number of persons training for this career. Thus, competition for jobs continues. A 2-year school says "entry level is tough." Job openings increasingly require a 4-year degree plus extra training to gain certification. Definitely need good computer knowledge. While most work in large law firms, others at insurance cos., in trust depts., or with govt.

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

	Poor	Caution	Fair	Good	Excellent	
Loan officer	0	-	-	-	-	-

But multiple bank mergers & acquisitions are resulting in the elimination of many positions in local banks. ◆ And large banks are automating loans so that customers apply by phone, again requiring fewer loan officers. Still, several banks say the outlook is fairly good.

Opportunities should be fair to good. One large insurance company says that although there are not a lot of adjusters in Minnesota, their company's definitely increased hiring. But they also say that the job market for adjusters is "not bad, but not ideal either.... middle or a little above middle." They state that to enhance chances of obtaining a job, a person could come out of college with coursework in insurance & belong to an insurance fraternity.

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OFFICE CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

SECRETARY

Performs office tasks & duties to help an office run smoothly. Duties usually include taking dictation, typing, scheduling appointments, word processing, computer operation.



SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+	
1	0	1	1	1	\$10
2	0	1	1	1	\$15
3	0	1	1	1	\$20+

SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

LEGAL SECRETARY

Prepare legal papers and correspondence of a legal nature, such as summonses, complaints, motions, and subpoenas. Must be familiar with legal terminology, procedures and documents, as well as legal research.



Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

MEDICAL SECRETARY

5,180 people work as medical secretaries in Minnesota. Perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties include taking dictation, & compiling & typing medical charts, reports, & correspondence.

One-half of all general office secretaries earn over \$10.75/hr., usually with experience.

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

One-half of all legal secretaries earn over \$14.14 per hour, usually with experience.

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

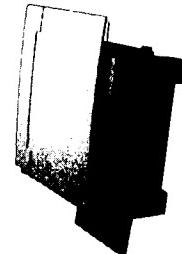
One-half of all medical secretaries earn over \$9.80 per hour, usually with experience.

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

RECEPTIONIST &

SWITCHBOARD OPERATOR

Greets customers & other visitors, determines their needs, and refers callers to the person who can help them. May type, file, sort mail, or operate a switchboard.



One-half of all receptionists and switchboard operators earn over \$7.90/hr., usually with experience.

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

One-half of all receptionists and switchboard operators earn over \$7.90/hr., usually with experience.

	0	\$5	\$10	\$15	\$20+
1	0	1	1	1	1
2	0	1	1	1	1
3	0	1	1	1	1

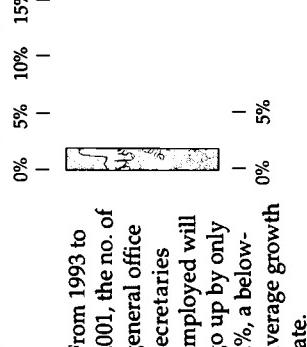
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SEE PAGES 68-72.

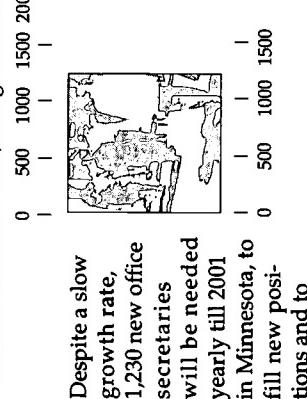
GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



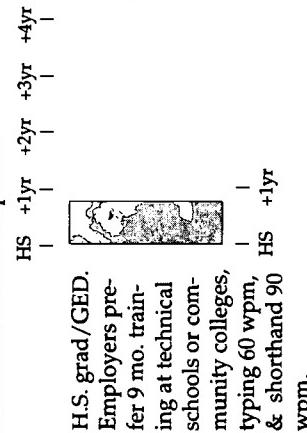
JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)



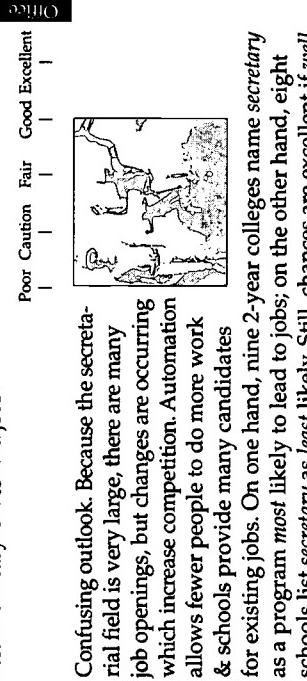
TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

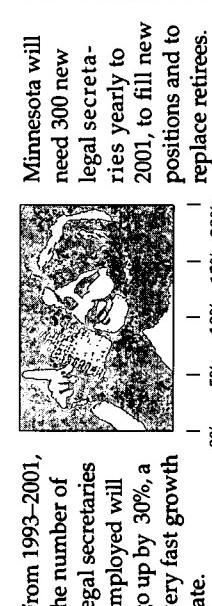
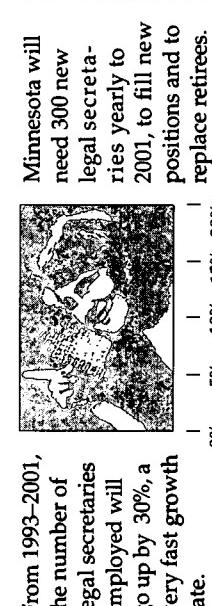
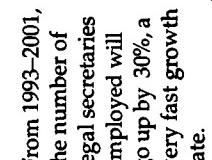


AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

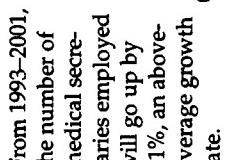
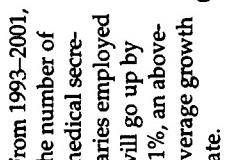
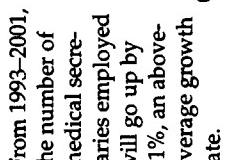


From 1993-2001, the number of legal secretaries employed will go up by 30%, a very fast growth rate.



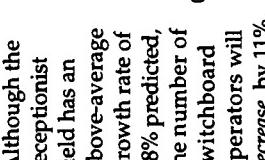
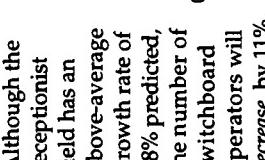
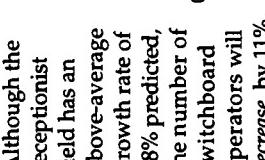
The job outlook is fairly good. The legal secretary field is not only growing very fast in Minnesota, but also will have a large number of new jobs from 1993 to 2001. Rapid growth is also projected nationally for the number of jobs for legal secretaries. A negative note: One technical college lists legal secretary as a field least likely to lead to related jobs. A positive note: Pay is very good compared to other clerical jobs.

From 1993-2001, the number of medical secretaries employed will go up by 21%, an above-average growth rate.



Nationally there is a projected rapid growth in the number of jobs for medical secretaries. Two technical & community colleges list medical secretary as a field most likely to lead to related jobs. A negative note: Pay is very good compared to other clerical jobs.

Although the receptionist field has an above-average growth rate of 18% predicted, the number of switchboard operators will decrease by 11%.



Job opportunities should be plentiful, because the receptionist field is growing fast and the turnover rate is high, as many receptionists leave their jobs to find other employment. Because many receptionists also perform secretarial duties, it's important for them to obtain good typing and computer skills, in addition to developing strong interpersonal and communication skills. A negative note: Four technical colleges list receptionist as a field least likely to lead to good pay.

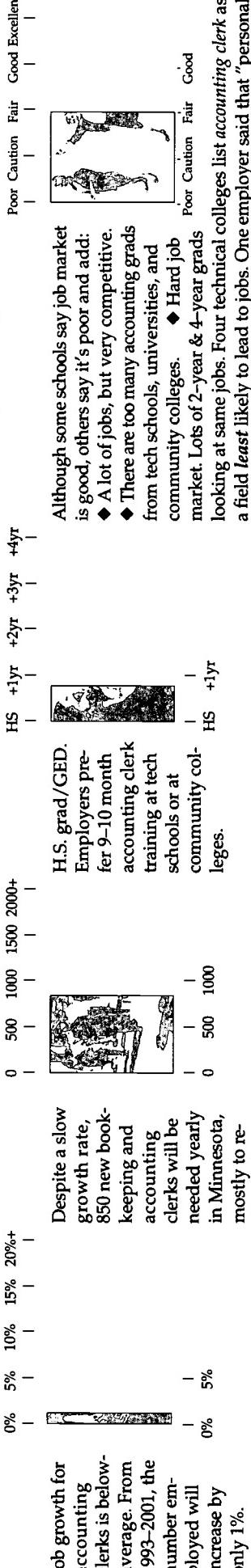
ENHANCE YOUR SKILLS IN THESE FIELDS WITH SHORT-TERM TRAINING.

SEE PAGES 68-76.

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GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001.)



JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

	0	500	1000	1500	2000+
Despite a slow growth rate, 850 new bookkeeping and accounting clerks will be needed yearly in Minnesota, mostly to replace retirees.	0	500	1000		
New job growth for office clerks is average. From 1993-2001, their numbers will increase by 14%.	0	500	1000	1500	2000+

TRAINING NEEDED

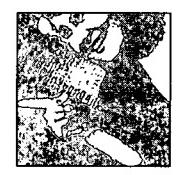
How much full-time training is generally needed to enter this occupation?

	HS	+1yr	+2yr	+3yr	+4yr
H.S. grad/GED. Employers prefer 9-10 month accounting clerk training at tech schools or at community colleges.	HS	1	1	1	1
Community college students will have to take 1 year of accounting, 1 year of bookkeeping, and 1 year of general office work.	HS	1	1	1	1

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

	Poor	Caution	Fair	Good	Excellent
Although some schools say job market is good, others say it's poor and add:	1	1	1	1	1
◆ A lot of jobs, but very competitive.					
◆ There are too many accounting grads from tech schools, universities, and community colleges.					
◆ Hard job market. Lots of 2-year & 4-year grads looking at same jobs. Four technical colleges list accounting clerk as a field <i>least</i> likely to lead to jobs. One employer said that "personal computers...are making [some of] these positions obsolete."					

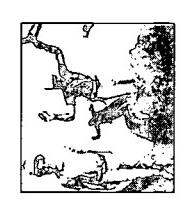


New job growth for office clerks is average. From 1993-2001, their numbers will increase by 14%.



Minnesota will need 1,830 new general office clerks per year till 2001, to fill new positions and to replace retirees.

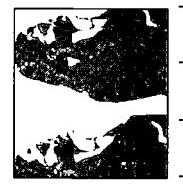
Opportunities should be quite favorable because, of all occupations, *general office clerk* ranks #3 in having the greatest number of new jobs predicted from 1993 to 2001. But the field also attracts many workers. In a 1994 survey, businesses were seeing an oversupply of *clerical workers*. A union rep says that, to ensure a job, clerks should know word processing & spreadsheets, and that job-seekers without computer skills will have a harder time finding work. High turnover.



Human services worker will be the #1 fastest-growing occupation in Minnesota from 1993 to 2001. During that period, it will also have a large number of new jobs. The reason: There'll be an increased need for social work & some of that need will be met through greater use of *human services workers* to assist social workers. Three 2-year colleges list human services as a field *most likely* to lead to related jobs.



Minnesota will need 660 new teacher aides each year to 2001, to fill new positions and to replace retirees.



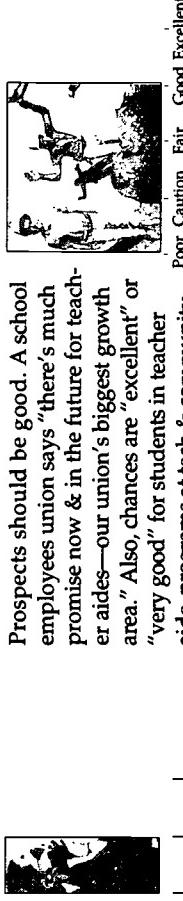
Prospects should be good. A school employees union says "there's much promise now & in the future for teacher aides—our union's *biggest growth area*." Also, chances are "excellent" or "very good" for students in teacher aide programs at tech & community colleges. Some teacher aides are licensed teachers trying to get a foot in the door. But aides are usually trained by a school district, so special schooling isn't always needed. Spanish helps in some areas.



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The teacher aide field has an above-average growth rate. From 1993-2001, the number of aides employed will increase by 20%.



Prospects should be good. A school employees union says "there's much promise now & in the future for teacher aides—our union's *biggest growth area*." Also, chances are "excellent" or "very good" for students in teacher aide programs at tech & community colleges. Some teacher aides are licensed teachers trying to get a foot in the door. But aides are usually trained by a school district, so special schooling isn't always needed. Spanish helps in some areas.

TECHNICAL CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

COMPUTER PROGRAMMER

Working from charts or diagrams, writes detailed instructions to the computer system in coded language. Analyzes programming requests.

SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

Office
Careers

Technical



SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

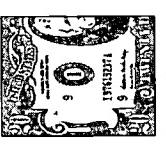


Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

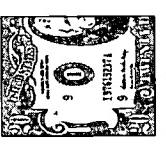


Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



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SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
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9					
10					

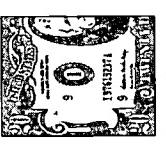


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SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
1					
2					
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Nine out of ten computer programmers earn over \$10.61/hr. (Source EDP Co. also does a survey that details national pay for specific specialties in programing.)

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

	\$0	\$5	\$10	\$15	\$20+
0	10,000	20,000	30,000+		
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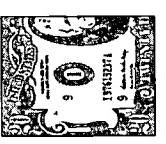


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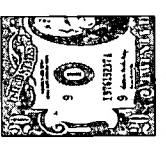


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MORE ABOUT COMPUTER FIELDS ON PAGE 52-54.

ENHANCE YOUR COMPUTER SKILLS WITH SHORT-TERM TRAINING, P. 72, PP. 68-71, 74-75.

GROWTH RATE

How fast this occupation is growing.
(Percent Increase from 1993 to 2001).

	0%	5%	10%	15%	20%+
Programming is a field that's growing at an average rate. From 1993-2001, the number of programmers employed will increase 14%.	1	1	1	1	1



Minnesota will need 510 new programmers yearly to 2001, to fill new positions and to replace retirees.

	0	500	1000	1500	2000+
Minnesota will need 510 new programmers yearly to 2001, to fill new positions and to replace retirees.	1	1	1	1	1

Minnesota will need 850 new systems analysts yearly to 2001, to fill new positions and to replace retirees.

	0%	5%	10%	15%	20%+
Computer engineering has a very fast growth rate. From 1993 to 2001, the number of computer engineers employed will increase by 65%.	1	1	1	1	1

JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

	0	500	1000	1500	2000+
Computer engineering has a very fast growth rate. From 1993 to 2001, the number of computer engineers employed will increase by 65%.	0	1	1	1	1

Minnesota will need 740 new computer engineers yearly to 2001, to take new positions and to replace retirees.

	0	500	1000	1500	20%+
Minnesota will need 740 new computer engineers yearly to 2001, to take new positions and to replace retirees.	1	1	1	1	1

Minnesota will need 250 new electrical engineers yearly to 2001, to take new positions and to replace retirees.

	0	500	1000	1500	20%+
Minnesota will need 250 new electrical engineers yearly to 2001, to take new positions and to replace retirees.	1	1	1	1	1

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

	HS	+1yr	+2yr	+3yr	+4yr
Programming is a field that's growing at an average rate. From 1993-2001, the number of programmers employed will increase 14%.	1	1	1	1	1



Probably need a 4-yr degree in computer science; but shorter training may be enough if experienced in fields like accounting or inventory control.

	HS	+1yr	+2yr	+3yr	+4yr
Probably need a 4-yr degree in computer science; but shorter training may be enough if experienced in fields like accounting or inventory control.	1	1	1	1	1



Minnesota will need 850 new systems analysts yearly to 2001, to fill new positions and to replace retirees.

	0	500	1000	1500	2000+
Minnesota will need 850 new systems analysts yearly to 2001, to fill new positions and to replace retirees.	1	1	1	1	1

Minnesota will need 740 new computer engineers yearly to 2001, to take new positions and to replace retirees.

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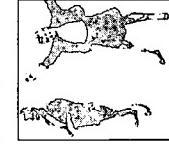
Minnesota will need 250 new electrical engineers yearly to 2001, to take new positions and to replace retirees.

	0	500	1000	1500	20%+
Minnesota will need 250 new electrical engineers yearly to 2001, to take new positions and to replace retirees.	1	1	1	1	1

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

	Poor	Caution	Fair	Good	Excellent
Programming is a field that's growing at an average rate. From 1993-2001, the number of programmers employed will increase 14%.	1	1	1	1	1



Although programming is not expected to grow as rapidly as in the past, prospects are good for the next few years, according to a data processing assn. Another source says that "to remain competitive in today's job market, computer professionals must... keep up with the latest technology." It may help to get training in:

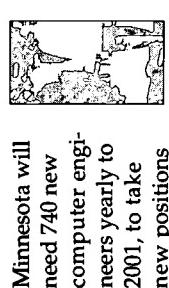
- ◆ Newer languages such as C & C++;
- ◆ Computer networking;
- ◆ UNIX;
- ◆ Personal computer software. See more on pp. 52-54.



Job outlook is very favorable & should continue so for next few years. When 4-year colleges were asked in Aug. 95 to list which majors were most likely to lead to jobs, ten colleges listed computer science (2nd highest of all majors) & four listed management information systems. Also, salaries for graduates in these fields are among the highest. Nationally, U.S. News & World Report named systems analyst as a "Hot Job Track." More on pp. 52-54.



The U of M Institute of Technology says that this is "the hottest area of all engineering!" The job market is excellent for software design. Lots of companies are looking for computer science majors, but since there are not enough to fill jobs, software engineers are able to fill these positions." U.S. News & World Report (Oct 94) named software development, computer scientist & computer engineer as "Hot Job Tracks."



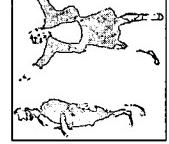
Requires a 4-yr. degree in software engineering, computer science, or computer engineering.

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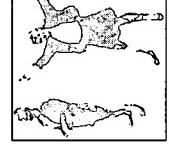
Requires a 4-yr. degree in electrical engineering; in some cases a master's is preferred. In addition, electrical engineers need to pass licensing exam after work experience.

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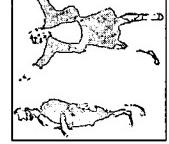
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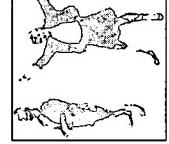
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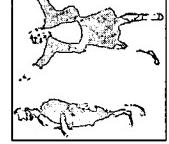
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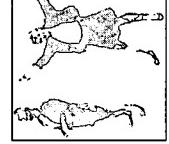
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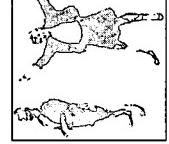
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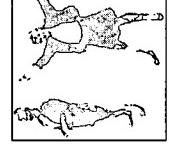
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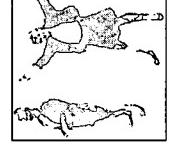
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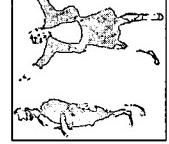
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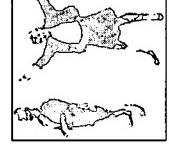
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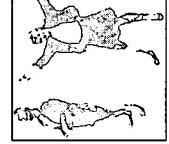
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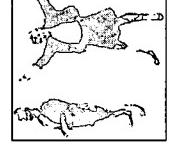
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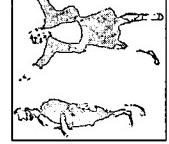
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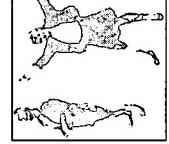
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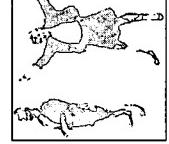
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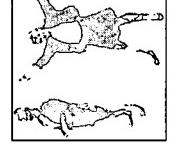
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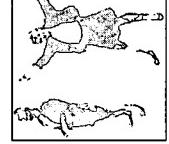
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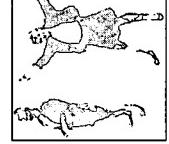
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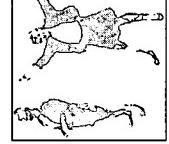
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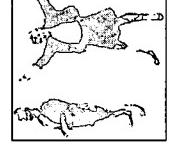
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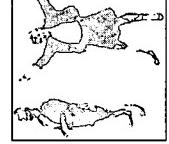
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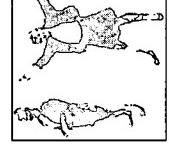
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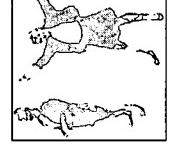
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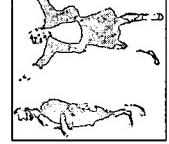
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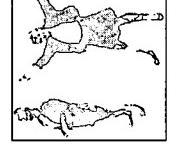
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MORE TECHNICAL CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

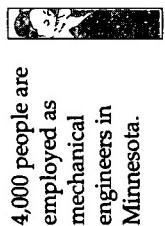
SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

MECHANICAL ENGINEER

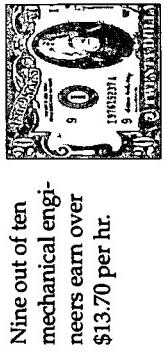
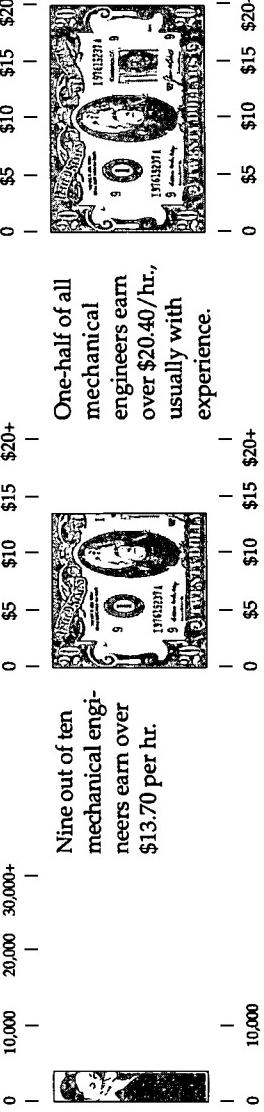
Plan & design tools, engines, machines, & other mechanical equipment. Oversee installation, operation, maintenance, & repair of such equipment as centralized heat, gas, and water systems.

technical



SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

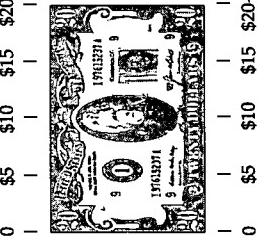


Nine out of ten mechanical engineers earn over \$13.70 per hr.

10,000

SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

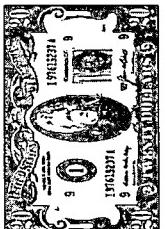
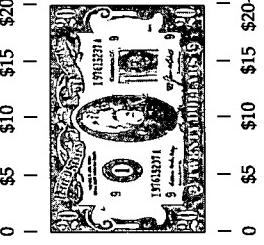


One-half of all mechanical engineers earn over \$20.40/hr., usually with experience.

10,000

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).



One-half of all mechanical engineers earn over \$20.40/hr., usually with experience.

10,000

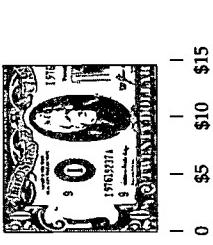
ELECTRONIC TECH

Apply electrical and electronic theory to design, build, test, repair, and modify developmental or production electrical equipment in industrial or commercial plants. Directed by engineering staff.



10,390 people are employed as electronic & electrical technicians in Minnesota.

10,000



Nine out of ten electrical & electronic technicians earn over \$10.00/hr.

10,000

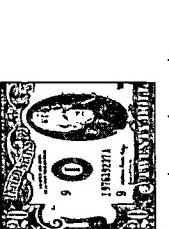
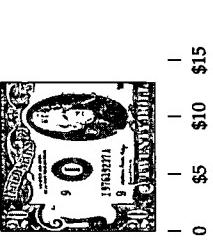
DRAFTER

Prepare clear, complete, and accurate working plans and detail drawings from rough or detailed sketches or notes, for engineering or manufacturing purposes according to specified dimensions.



6,140 people are employed as drafters in Minnesota.

10,000



One-half of all drafters earn over \$9.21/hr., usually with experience.

10,000

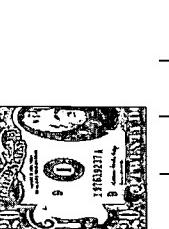
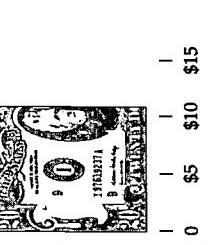
LAB TECHNICIAN

Conduct chemical, biological or physical lab tests. Assist in making lab analyses for research and development of new products, new processes, quality control, or environmental standards.



4,570 people in Minnesota are employed as technicians in physical and life sciences.

10,000



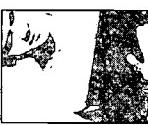
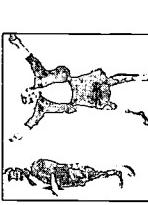
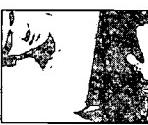
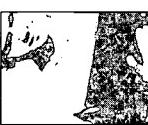
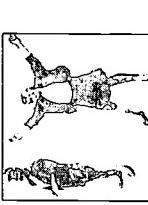
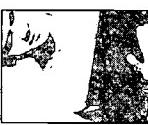
Half of all lab techs earn over \$11.06/hr., usually with exp. (based on Minn. salary survey of chem., biol., food, & agric. lab techs).

10,000

ENHANCE YOUR SKILLS IN THESE FIELDS WITH SHORT-TERM TRAINING.

23

SEE PAGES 68-75.

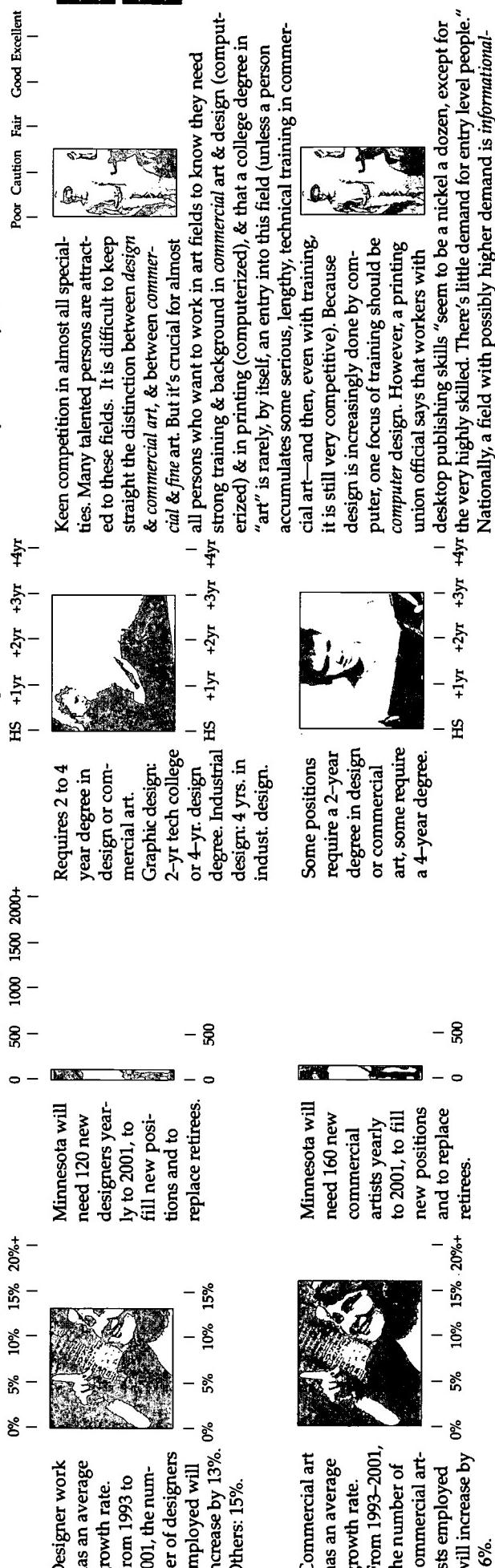
GROWTH RATE <small>(Percent increase from 1993 to 2001)</small>	JOB OPENINGS <small>How many job openings per year will be available for new workers (average till 2001)</small>	TRAINING NEEDED <small>How much full-time training is generally needed to enter this occupation?</small>	AVAILABILITY OF JOBS							
			0	500	1000	1500	2000+	HS +1yr +2yr +3yr +4yr	Poor Caution Fair Good Excellent	
Mechanical engineering has an above-average growth rate. From 1993 to 2001, the no. of mechanical engineers employed will increase by 21%.	 Minnesota will need 190 new mechanical engineers yearly to 2001, to take new positions and to replace retirees.	Requires a 4-yr. degree in mechanical engineering. In addition, mechanical engineers need to pass a licensing exam after work experience.	0	500	1000	1500	2000+	HS +1yr +2yr +3yr +4yr	Poor Caution Fair Good Excellent	
Electrical & electronic technician work has an average growth rate. The no. of electronic technicians will increase by 16%.	 Minnesota will need 330 new electrical & electronic technicians yearly to 2001, to fill new positions and to replace retirees.	Usual requirement is 2 years of training in electronics, available at tech colleges & other schools.	0	500	1000	1500	2000+	HS +1yr +2yr +3yr	Poor Caution Fair Good Excellent	
Drafting work has an average growth rate. From 1993 to 2001, the no. of drafters employed will increase by 8%.	 Minnesota will need 240 new drafters yearly to 2001, to fill new positions and to replace retirees.	Most employers want a 2-yr tech college drafting degree. A few hire H.S. grads to do tracing, if they've taken drafting courses.	0	500	1000	1500	2000+	HS +1yr +2yr +3yr	Poor Caution Fair Good Excellent	
Lab tech work in physical and life sciences has an above-average growth rate. The no. of lab techs will increase by 21% by 2001.	 Minn. will need 210 new lab techs yearly to 2001 in physical and life sciences, to fill new positions and to replace retirees.	Most employers want a 2-yr lab degree from community or tech college. Some want 4-yr degree. A few hire H.S. grads.	0	500	1000	1500	2000+	HS +1yr +2yr	Poor Caution Fair Good Excellent	
BEST COPY AVAILABLE										
  										
Prospects for jobs are favorable. The U of M says the job market is always very good; this is the most stable of the engineering professions. Long-term prospects are strong also. The U of M suggests enhancing job chances by having an internship, getting extra computer training (since more cooperation with electrical engineers is now common), & balancing technical skills with people skills (many end up in supervisory positions very quickly).										
  										
Prospects are looking up. In recent years there's been much competition for jobs —layoffs in the computer industry have meant many qualified job-seekers are available. However, this appears to be turning around. Six tech colleges list electronic technician as a program most likely to lead to jobs. Many schools & businesses see prospects for five years as "excellent" or "good." Also, three tech colleges say <i>telecommunication tech</i> has high placement. But two rate <i>electrical technician low</i> . And one rates <i>bio-medical tech low</i> (see p. 51).										
  										
Good chances for jobs. Depends on the workload of both construction & manufacturers of complicated products. A professional assn. says <i>there will be jobs</i> , but training must focus on computer-aided design. Four tech and comm. colleges list <i>drafter as highly likely</i> to lead to jobs. Some schools say placement appears better in 1995 than 1994. However, in the long run, computer-aided design means less demand, because										
  										
Fairly good outlook, especially in food science, agriculture, chemistry, engineering, environment, & biology. Job prospects are best with experience on the equipment currently in use in industrial and government labs. Schools' comments: ♦ Majority of jobs are with cos. who do lab & engineering consulting work on contract for another company; not many grads get jobs with large companies anymore.										
♦ Environmental tech has really been pretty strong.										

ENHANCE YOUR SKILLS IN THESE FIELDS WITH SHORT-TERM TRAINING.

SEE PAGES 68-72.

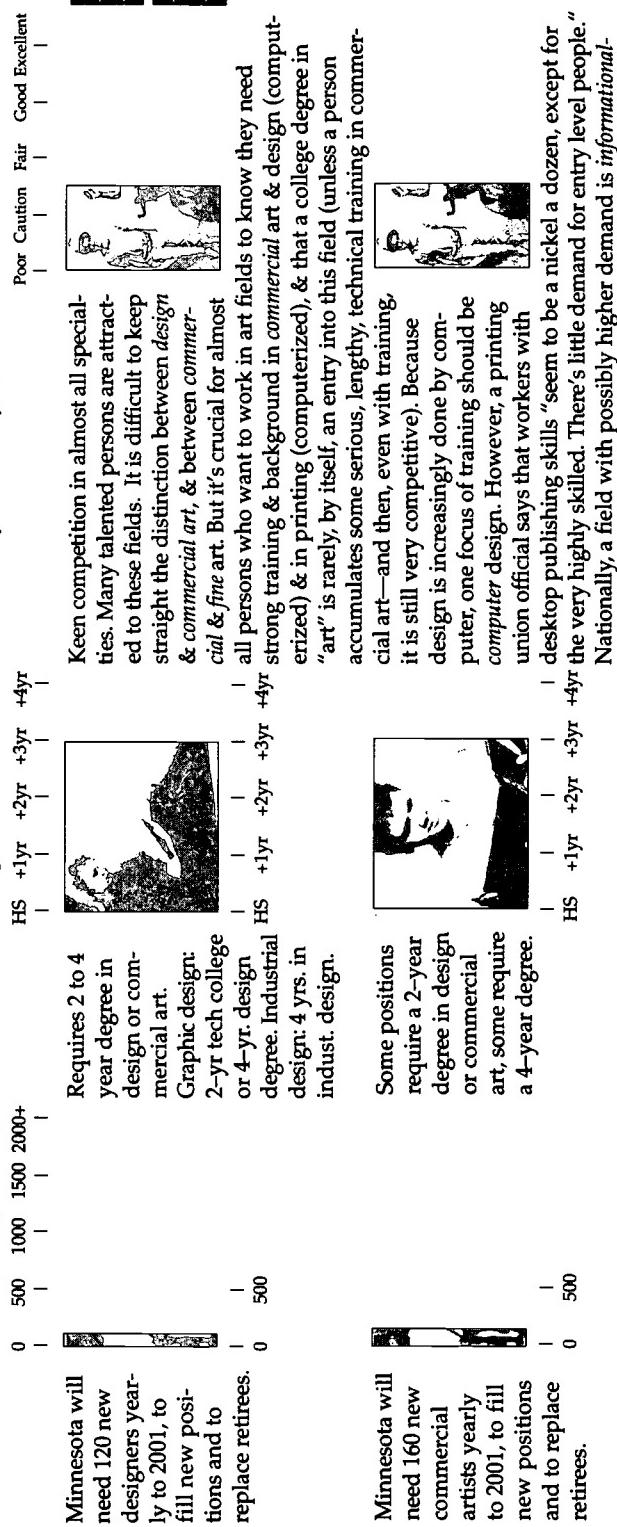
GROWTH RATE

How fast this occupation is growing.
Percent increase from 1993 to 2001).



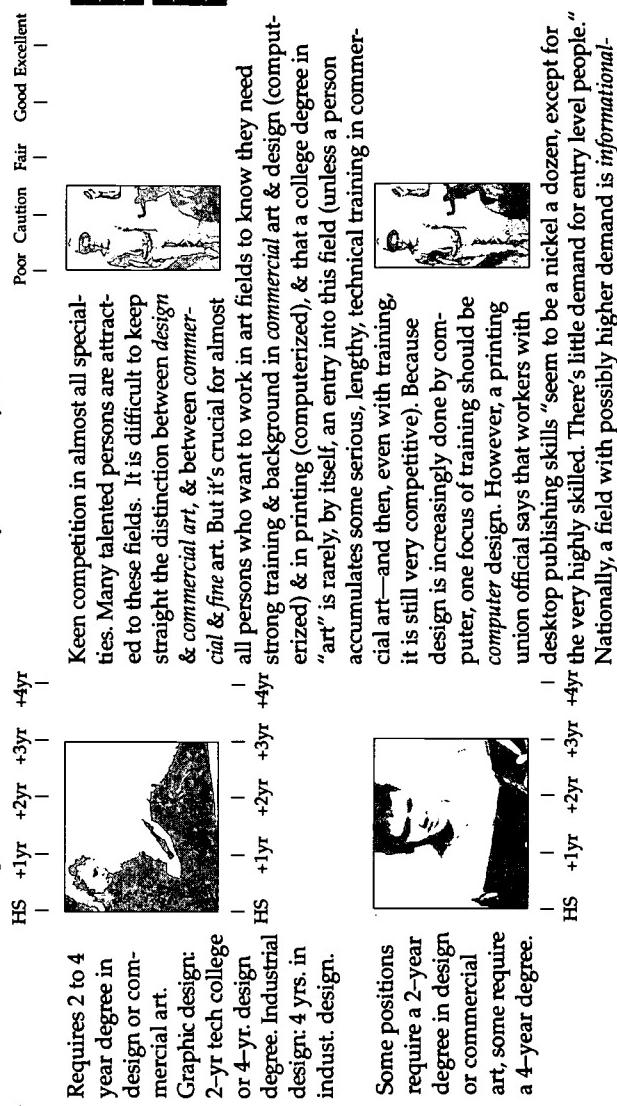
JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)



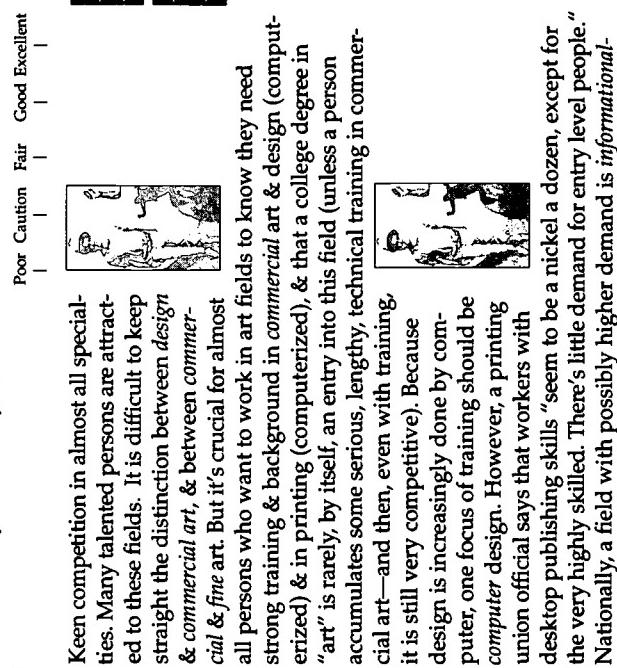
TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?



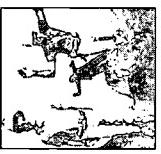
AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?



Keenly competitive because so many people are attracted to the writing field. Chances best at small town & suburban newspapers & small radio or TV stations. Outlook is better in technical writing. Nationally, all writing fields are hard to enter. For reporters, heavy competition will continue at large newspapers, at TV & radio stations, & on national magazines. It may help somewhat to become skilled at using data bases & other computer techniques. Internships are advised.

Keenly competitive because so many people are attracted to the writing field. Chances best at small town & suburban newspapers & small radio or TV stations. Outlook is better in technical writing. Nationally, all writing fields are hard to enter. For reporters, heavy competition exists at large newspapers, at TV & radio stations. It may help somewhat to become skilled in computer techniques. Internships are a valuable way to gain experience.



	Good	Excellent
Job outlook	better for technical writers than for other writers.	
Experience in industry	is valuable, again in science & technology.	
Having participated in an internship		is a plus.
use databases & computer techniques		Also, it's wise to learn to
Fair Caution Poor		



Usually need at least a 4-yr degree in a technical field &/or journalism; but some jobs require grad work. Major in technical communication is a plus.



Job outlook is better for technical writers than for other writers. This field has <i>not great</i> , but <i>fair</i> prospects. Talented writers who specialize in scientific or technical subjects have an advantage.	Poor	Caution	Fair	Good	Excellent
Experience in industry is valuable, again in science & technology. Having participated in an internship is a plus. Also, it's wise to learn to use databases & computer techniques					
Usually need at least a 4-yr degree in a technical field &/or journalism, but some jobs require grad work.					
Major in technical communication	HS +1yr	+2yr	+3yr	+4yr	



Technical writing has an average growth rate. The number of technical writers will increase by an estimated 17%.

FOOD SERVICE, PERSONAL SERVICE,

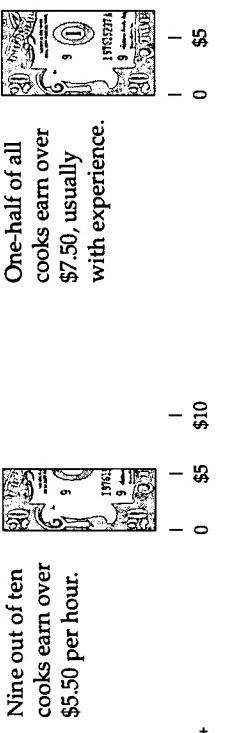
JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

SIZE OF OCCUPATION

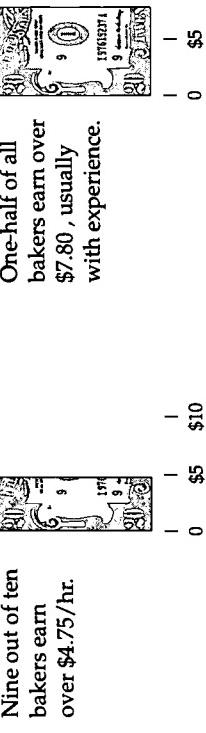
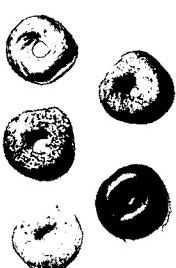
How many paying jobs exist in this occupation in Minnesota (1993).

COOKS IN RESTAURANTS, CAFETERIAS, & INSTITUTIONS
Prepare, season, & cook various soups, meats, vegetables, desserts, and other food for the public.

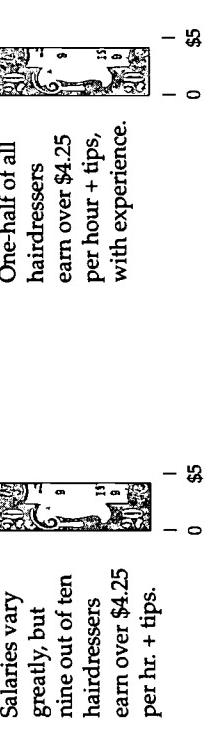


One-half of all cooks earn over \$7.50, usually with experience.

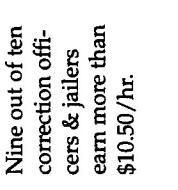
BAKER BREAD & PASTRY
Mix and bake ingredients according to recipes to produce bread, pastries, and other baked goods, for consumption on premises or for sale as specialty baked goods.



HAIRDRESSER & COSMETOLOGIST
Hairdressers & cosmetologists provide beauty services for customers. Cut & treat hair & scalp, apply makeup, suggest hair styles.



One-half of all correction officers & jailers earn more than \$14.10/hour, usually with experience.



Nine out of ten correction officers & jailers earn more than \$10.50/hr.



\$13.35
\$5.00
??\$7,200

52

\$18.00
\$9.00
??\$10.00-\$12.00

PROTECTIVE SERVICE WORKERS

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).

0% 5% 10% 15% 20%+

Cooking has an above-average growth rate. The no. of cooks will rise 18%. (24% in restaurants, & 5% in cafeterias & institutions.)



JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

0 500 1000 1500 2000+

Minnesota will need 1,040 new cooks yearly to 2001, to fill new positions and to replace retirees (830/yr. in restaurants).

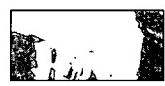


TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

HS +1yr +2yr +3yr +4yr

To become a dinner cook or chef, need either training at technical college (10-20 mos.), or apprenticeship (on-the-job). HS +1yr +2yr



AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

Poor Caution Fair Good Excellent

Very good outlook. Rapid growth in restaurants, & fairly fast in nursing homes & health care, but slower in public schools. Cooking is not only a fast-growing field, but also will have a large number of new jobs till 2001. Plentiful job openings because many workers leave this field to seek other jobs. But generally low pay.

Hairdressing is growing at an above-average rate. From 1993-2001, the number of jobs available will increase 20%. (Only 5% mfg.)



Minnesota will need 270 new hairdressers & cosmetologists yearly to 2001, to fill new jobs & to replace 30% mfg.).



AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

Poor Caution Fair Good Excellent

Very good outlook. Rapid growth in restaurants, & fairly fast in nursing homes & health care, but slower in public schools. Cooking is not only a fast-growing field, but also will have a large number of new jobs till 2001. Plentiful job openings because many workers leave this field to seek other jobs. But generally low pay.



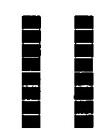
Poor Caution Fair Good Excellent



The correction officer field is not only growing very fast, but will also have a large number of new jobs till 2001. A union official says that present job availability (Oct 95) is excellent & anticipates the same for the next 5-8 years. Twin Cities jail staffs have greatly increased in the past ten years. A new private prison was recently built in Appleton. Also a proposed new prison in St. Cloud would add many jobs.



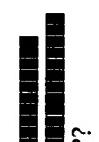
Keen competition. Some improvement next 5 yrs due to retirements
Keen competition
??



Community College or Tech. Coll.: 2yr
HS grad, health & physical exam
2yr. College + WorkExp.



Community College or Tech. Coll.: 2yr
HS grad, health & physical exam
2yr. College + WorkExp.



10%
12%
Nat'l: very high
??

54

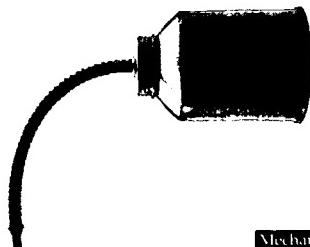
MECHANICAL CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

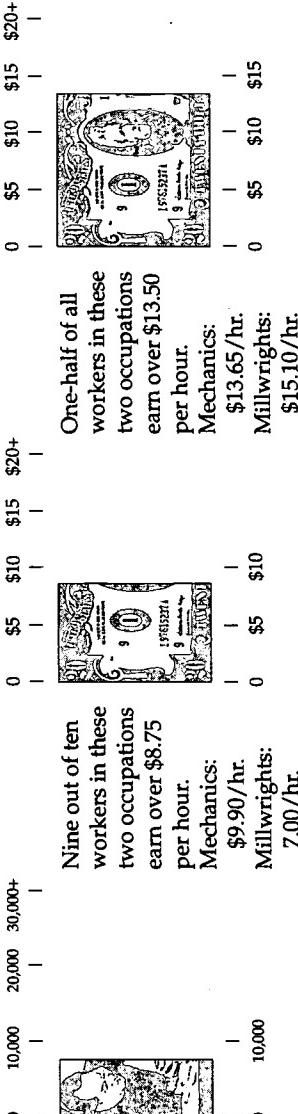
MACHINE MECHANIC & MILLWRIGHT

Machinery mechanics repair & maintain industrial machines which are used in factory production, processing, printing, etc. Millwrights install, move & repair machinery & heavy equipment.



SIZE OF OCCUPATION

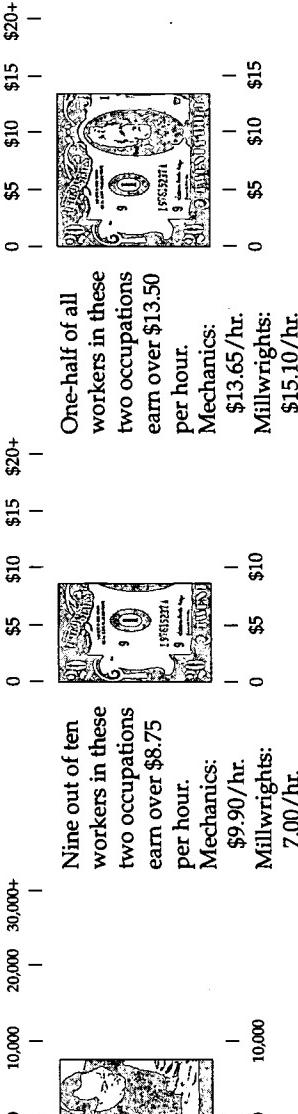
How many paying jobs exist in this occupation in Minnesota (1993).



Mechanic
Careers Precision
Machine

SALARIES - LOW RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

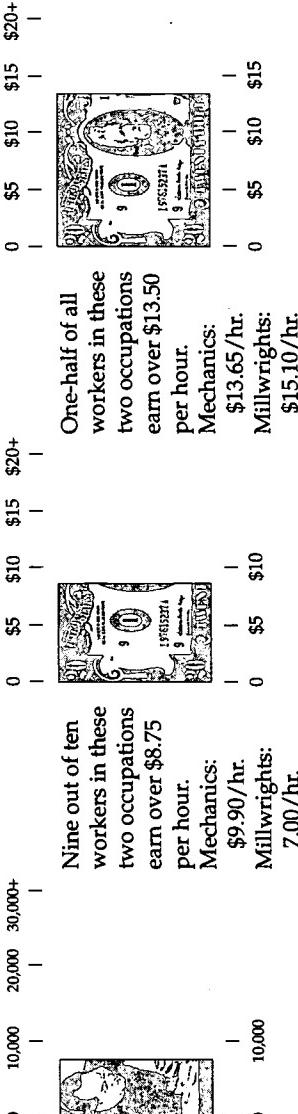


Mechanics:
Millwrights:

\$9.90/hr.
\$7.00/hr.

SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

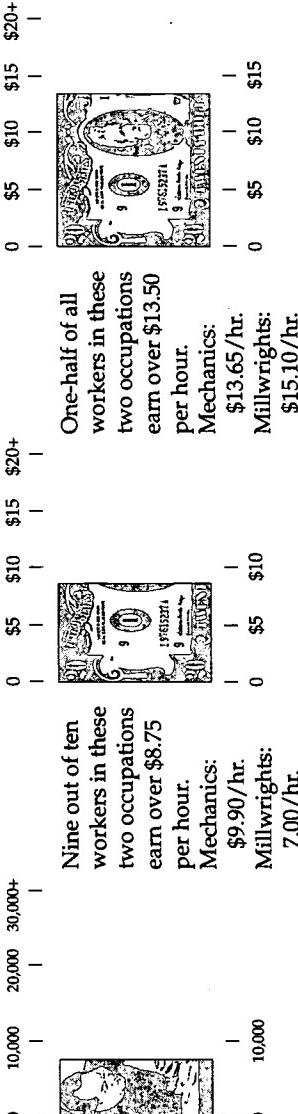


Mechanics:
Millwrights:

\$13.65/hr.
\$15.10/hr.

SALARIES - HIGH RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).

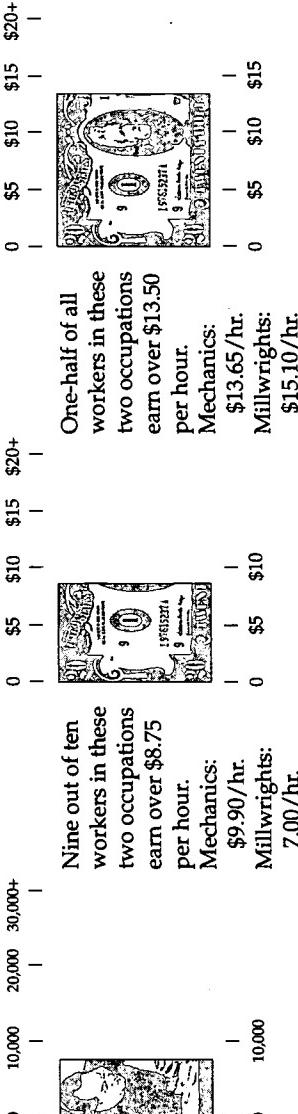


Mechanics:
Millwrights:

\$15.10/hr.

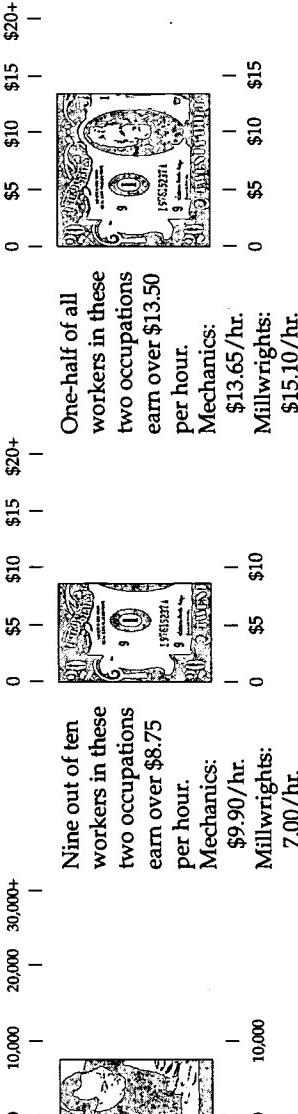
OTHER VEHICLE MECHANICS

Half of the workers in this occupation earn at least this amount per hour (1994).



AutoBody:
Bus-Truck:

\$8.50
\$9.00
\$11.42
\$8.00



AutoBody:
Bus-Truck:

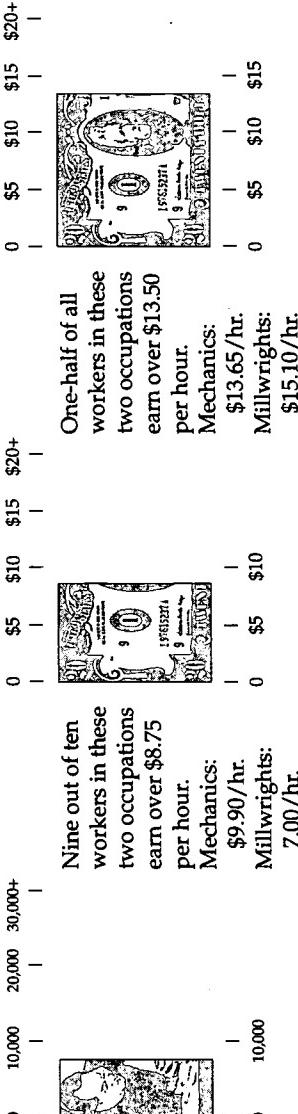
\$12.90
\$13.93
\$15.31
\$10.00

OTHER VEHICLE AVAILABILITY

(Continued from last column, next page.)

Diesel Mechanic

For those who finish training, jobs are plentiful. A mechanics union says: "Good prospects for qualified mechanics (it's wise to specialize in one engine such as Detroit, Caterpillar, Cummins). It's heavy work which can cause health problems as a mechanic gets older, and also the pollution that you get when you start up a diesel after 2 days in the shop is tremendous, breathing that smoke, etc. Cost of tools is very high, because



AutoBody:
Bus-Truck:

\$8.50
\$9.00
\$11.42
\$8.00

Auto Body Mechanics

If working outside Twin Cities area, a union says chances of getting a job are good, but workers should try to work for a fleet, as union wages are higher. One technical college listed diesel mechanics as a field most likely to lead to jobs.

Diesel, Bus, & Truck Mechanics

If working outside Twin Cities area, mechanics should try to get into trucking fleet, because wages are generally lower where there is no union."

Heavy Equipment Mechanics

Two technical schools list truck mechanic as one of their programs most likely to lead to jobs, and two say truck mechanic as one of their programs most likely to lead to jobs which pay relatively well.

Farm Equipment Mechanics

◆ **Diesel mechanic:** For those who finish training, jobs are plentiful. A mechanics union says: "Good prospects for qualified mechanics (it's wise to specialize in one engine such as Detroit, Caterpillar, Cummins). It's heavy work which can cause health problems as a mechanic gets older, and also the pollution that you get when you start up a diesel after 2 days in the shop is tremendous, breathing that smoke, etc. Cost of tools is very high, because

Aircraft Mechanics

◆ **Auto body continued:** Nevertheless, auto body is listed by 3 tech colleges as a field most likely to lead to jobs, but it's also listed by 3 tech colleges as a field least likely to lead to jobs which pay relatively well. The amount of work depends on the weather. If it's not raining or snowing, then there's not so much work.



Precision Machine

for power train specialists (that is, transmission & rear end).

If working outside Twin Cities area, mechanics should try to get into trucking fleet, because wages are generally lower where there is no union."

Two technical schools list truck mechanic as one of their programs most likely to lead to jobs, and two say truck mechanic as one of their programs most likely to lead to jobs which pay relatively well.

◆ **Truck mechanics:** A mechanics union says: "The outlook is good, especially if

INDUSTRIAL MACHINE, AUTO, AUTO BODY, BUS & TRUCK, HEAVY EQUIPMENT, FARM EQUIPMENT, AIRCRAFT

29

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



These two fields have a below-average growth rate. From 1993 to 2001, the no. of jobs will go up only 4%. (4% mechanics & 7% millwrights.)

JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

Occupation	0	500	1000	1500	2000+
Auto Body	0	1	1	1	1
Bus/Truck	0	1	1	1	1
Farm Equip.	0	1	1	1	1

Minnesota will need 230 new workers in these fields yearly, to fill new job openings and to replace retirees. (180 mechanics & 50 millwrights.)

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

Occupation	HS	+1yr	+2yr	+3yr	+4yr
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1

Job outlook is average. Unions say that best job prospects are for those trained in electronic repair (CNC—computer numerical control). Nationally, the number of jobs for machinery repairers will decrease till 2005 as more factories use automated production equipment that requires less repair than existing machines. In Minnesota, a union says, when job openings occur, they're usually filled by workers inside a company. Still, two tech colleges say *maint. mechanics* have very good prospects.



Minnesota will need 590 new automotive mechanics each year to 2001, to fill new positions and to replace retirees.

Occupation	HS	+1yr	+2yr
Auto Body	0	1	1
Bus/Truck	0	1	1
Farm Equip.	0	1	1

Some automotive mechanics train at technical colleges (18-20 mos.). Others learn through dealership apprenticeships. Very few gas stations train mechanics.

Occupation	HS	+1yr	+2yr
Auto Body	1	1	1
Bus/Truck	1	1	1
Farm Equip.	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1



Minnesota will need 480 new mechanics every year till 2001.

Occupation	HS	+1yr	+2yr
Auto body	180	1	1
Bus/Truck	180	1	1
Farm Equip.	80	1	1
Heavy Equip.	40	1	1

As a group, these fields will grow at an average rate of 9%. But the rate of each is different:
Auto body: 17%
Bus/Truck: 11%
Farm Equip.: 11%
Heavy Ecp.: -2%

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1



Very few new jobs in farm equipment repair will be produced in Minnesota from 1993 to 2001. Farmland consolidation & more efficient farm practices will hold down demand, but the tendency of farmers to make fewer of their own repairs will increase it. The result will be almost zero or very little growth. Prospects should be best for people who complete formal training in farm equipment repair or diesel mechanics.

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

◆ **Heavy Equipment Mechanics:** An actual decrease in the number of jobs for mobile heavy equipment mechanics is predicted in Minnesota from 1993 to 2001. Prospects should be best for people who complete formal training programs in diesel or heavy equipment mechanics.

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1



◆ **Aircraft mechanic:** An airline union says that "the outlook for airline mechanics is still fair to poor in Minnesota. It's bet-

ter in the southeast and southwest U.S. where there are new startup air companies, but those companies also pay lower nonunion wages—wages are half as high as here....The outlook is better here for machinists & plant (or facility) maintenance mechanics—one Minnesota airline has a big machine shop & also has been hiring more maintenance mechanics (that is, they start maintaining buildings, vehicles, and heating & cooling systems

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

and can eventually hope to move into those aircraft maintenance positions which don't require licensing)....There are not good job prospects for airplane mechanics with little experience. Poor chance for a job coming out of training right now. What would improve job chances? A lot of well-rounded maintenance experience....There's a glut of airline mechanics around the country."

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

National predictions point to a slower than average growth in the number of jobs due to productivity gains resulting from greater use of automated inventory control and modular systems which speed repairs and parts replacement. Prospects are likely to be best in general aviation.

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

(Other mechanics continued in column 1, bottom of previous page)



Minnesota will need 480 new mechanics every year till 2001.

Occupation	HS	+1yr	+2yr
Auto body	180	1	1
Bus/Truck	180	1	1
Farm Equip.	80	1	1
Heavy Equip.	40	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos
Aircraft: 22 mos.
Apprenticeships available too (but not for aircraft).

Occupation	Poor	Caution	Fair	Good	Excellent
Auto Body	1	1	1	1	1
Bus/Truck	1	1	1	1	1
Farm Equip.	1	1	1	1	1
Heavy Equip.	1	1	1	1	1

Training time at tech colleges:
Auto body: 9-18 mos
Truck: 18-24 mos
Farm Equip: 20 mos
Heavy Equip: 18 mos

PRECISION MACHINE CAREERS

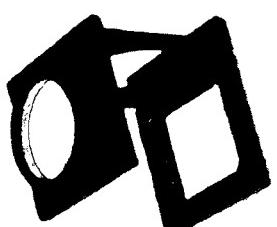
JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+		0	\$5	\$10	\$15	\$20+	
PRINTER, PRE-PRESS	4,820	1	1	1		1	1	1	1	1	1
Mostly "pre-press" workers, who prepare an original printing job before it is run on a printing press. They may be typesetters, page composers, photogravurers, strippers, platemakers. Increasingly they do this work by computer.											
	0	10,000	20,000	30,000+		0	\$5	\$10	\$15	\$20+	



SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+	
	1	1	1	1	1	1
4,820 people are employed as pre-press workers in the printing industry in Minnesota.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	0	\$5	\$10	\$15	\$20+	
	1	1	1	1	1	1
Nine out of ten pre-press workers earn over \$7.79 per hr.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	0	\$5	\$10	\$15	\$20+	
	1	1	1	1	1	1
One-half of all pre-press workers earn over \$12.72/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	0	\$5	\$10	\$15	\$20+	
	1	1	1	1	1	1
One-half of all printing machine operators and tenders earn over \$13.71/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	0	\$5	\$10	\$15	\$20+	
	1	1	1	1	1	1
One-half of all printing machine operators and tenders earn over \$13.71/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
Half of all tool & die makers earn over \$15.75/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
One-half of all machinists earn over \$15.20/hr.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
One-half of all machinists earn over \$15.20/hr.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
Half of all tool & die makers earn over \$15.75/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
One-half of all tool & die makers earn over \$15.75/hr., usually with experience.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
Nine out of ten machinists earn over \$9.70/hr.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$13.00	\$10.70	\$20.50	\$11.00	\$11.30	
	1	1	1	1	1	1
Nine out of ten tool and die makers earn over \$10.50/hr.	1	1	1	1	1	1
	0	10,000	20,000	30,000+		0

	\$9.10	\$6.50	\$11.00	\$8.50	\$8.50	
	1	1	1	1	1	1
Numerical control machine tool, metal/plastic	1	1	1	1	1	1
Combination machine tool setup/operator	2,790	2,310	3,210	4,660	6,010	
Heating/Air conditioning/Refrigeration mechanics						
Sheet metal workers	8,140	5,960	8,140	5,960	8,140	
Welders and cutters						
Farmers	43,030	???	???	???	???	
Farm Managers						
Butchers and meatcutters						
Inspectors & related occupations						

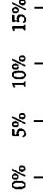
	???	???	???	???	???	
	1	1	1	1	1	1
???	???	???	???	???	???	
???	???	???	???	???	???	
???	???	???	???	???	???	

	???	???	???	???	???	
	1	1	1	1	1	1
???	???	???	???	???	???	
???	???	???	???	???	???	
???	???	???	???	???	???	

MORE ABOUT THESE FIELDS ON PAGES 55 & 56.

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



Pre-press work has an average growth rate. To 2001, the no. of pre-press workers will increase by 16%. (47% rise in electronic pagination system operators.)

JOB OPENINGS

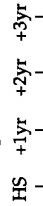
How many job openings per year will be available for new workers (average till 2001)



Minnesota will need 230 new pre-press workers yearly to 2001, to fill new positions and to replace retirees. (60 new electronic pagination operators.)

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?



Printing machine operators and tenders yearly to 2001, to fill new positions and to replace retirees.

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?



In the past 20 years, the printing industry has shifted to computerization in typesetting and page layout, resulting in fewer new jobs. Older occupations have suffered: printing assn. says job prospects are "very poor for typesetters, compositors, & platemakers." Considerable demand exists in the printing industry for pagination & desktop operators, which are newer, highly computerized jobs. However, many trained applicants are available for those jobs & starting pay is \$6.50/hr.

For printing press operators, the job outlook is good. Jobs for *offset, gravure, & flexographic* press operators will increase somewhat. Several tech colleges list printing (or graphic arts) as highly likely to lead to jobs. One source says that entry positions are available in *binderies* (starting wages of \$7-8/hr. & jobs are not very glamorous, but workers can advance from there). Also, companies are offering entry level training for pressroom helpers, jobs which pay more.

Many workers start as helpers in printing cos., and are trained on-the-job. Apprenticeships are also available. Or tech college training takes 12-18 mos.

Training programs for machining work and for tool & die take 18-20 mos. to complete at tech colleges.

Minnesota will need 200 new machinists and 100 new tool & die makers yearly to 2001, to fill new positions and to replace retirees.

Job growth for machinists and tool & die makers is below-average. From 1993-2001, the no. employed in each occupation will increase by only 4%.

In the past 20 years, the printing industry has shifted to computerization in typesetting and page layout, resulting in fewer new jobs. Older occupations have suffered: printing assn. says job prospects are "very poor for typesetters, compositors, & platemakers." Considerable demand exists in the printing industry for pagination & desktop operators, which are newer, highly computerized jobs. However, many trained applicants are available for those jobs & starting pay is \$6.50/hr.

Prospects for machinists and tool & die makers are very good. For 4 or 5 years there's been a demand for machinists, & although it cooled off briefly in mid-1995, an association of machine shops said in Feb 96, "We can't get enough qualified people." Twelve tech colleges in Aug 95 listed Machine Tool as a field *most* likely to lead to jobs (2nd highest of all training programs). Best job opportunities exist for machinists with CNC (computer numerical control). See more on pp. 55-56.

Skills can also be learned thru 4-yr apprenticeship on-the-job.

Tech College: 18mo or OJT
Tech College: 18mo or OJT
Tech Col: 18mo or Appren
Tech Col: 2 yrs or Appren
Tech Col: 9-18mo or Appren

Exper. or 2-4yr training
2-4 yr training + exper.
TechCol: 9-22mo or Appren
Exper. or Tech coll: 1-2yr

"Tech college, or Tech Col, or TC" mean that Technical College training is available.
OJT means on-the-job-training.
"Appren" means that, if accepted by the union & employer, 2-4 yr apprenticeship training is available on-the-job, plus schooling after hours.

Poor Caution Fair Good Excellent

Excellent
Should be good
Should be good
Should be fairly good
Should be very good

Fair to good for trained & experienced
Shrinking occupation; caution
Not a growing field at all, due to new quality methods

CONSTRUCTION CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

CARPENTERS

Construct wood structures in buildings and/or repair wood-work.



SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+	
CARPENTERS	0	1	1	1	
Construct wood structures in buildings and/or repair wood-work.	0	10,000	20,000		
	1	1	1	1	



SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

	0	\$5	\$10	\$15	\$20+	
CARPENTERS	0	1	1	1	1	
Construct wood structures in buildings and/or repair wood-work.	0	1	1	1	1	
	1	1	1	1	1	

ELECTRICIANS

Install, maintain, and repair wiring, electrical equipment, and fixtures. Ensure that work is in accordance with relevant codes.



	0	\$5	\$10	\$15	\$20+	
ELECTRICIANS	0	1	1	1	1	
Install, maintain, and repair wiring, electrical equipment, and fixtures. Ensure that work is in accordance with relevant codes.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
CARPENTERS	0	1	1	1	1	
Construct wood structures in buildings and/or repair wood-work.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
ELECTRICIANS	0	1	1	1	1	
Install, maintain, and repair wiring, electrical equipment, and fixtures. Ensure that work is in accordance with relevant codes.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
CARPENTERS	0	1	1	1	1	
Construct wood structures in buildings and/or repair wood-work.	0	1	1	1	1	
	1	1	1	1	1	

PLUMBERS, PIPEFITTERS, AND STEAMFITTERS:

Assemble, install, alter, and repair pipe systems (metal, plastic, ceramic, composition, etc.) that carry water, steam, air, or other liquids or gases.



	0	\$5	\$10	\$15	\$20+	
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS:	0	1	1	1	1	
Assemble, install, alter, and repair pipe systems (metal, plastic, ceramic, composition, etc.) that carry water, steam, air, or other liquids or gases.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS:	0	1	1	1	1	
Assemble, install, alter, and repair pipe systems (metal, plastic, ceramic, composition, etc.) that carry water, steam, air, or other liquids or gases.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
PLUMBERS, PIPEFITTERS, AND STEAMFITTERS:	0	1	1	1	1	
Assemble, install, alter, and repair pipe systems (metal, plastic, ceramic, composition, etc.) that carry water, steam, air, or other liquids or gases.	0	1	1	1	1	
	1	1	1	1	1	

PAINTERS and PAPERHANGERS

Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns; or cover interior walls and ceilings of rooms with decorative wallpaper or fabric.



	0	\$5	\$10	\$15	\$20+	
PAINTERS and PAPERHANGERS	0	1	1	1	1	
Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns; or cover interior walls and ceilings of rooms with decorative wallpaper or fabric.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
PAINTERS and PAPERHANGERS	0	1	1	1	1	
Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns; or cover interior walls and ceilings of rooms with decorative wallpaper or fabric.	0	1	1	1	1	
	1	1	1	1	1	

	0	\$5	\$10	\$15	\$20+	
PAINTERS and PAPERHANGERS	0	1	1	1	1	
Paint walls, equipment, buildings, bridges, and other structural surfaces using brushes, rollers, and spray guns; or cover interior walls and ceilings of rooms with decorative wallpaper or fabric.	0	1	1	1	1	
	1	1	1	1	1	

MORE ABOUT CONSTRUCTION CAREERS ON PAGES 34-35, 56.

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).

	0%	5%	10%	15%	20%	+
Carpentry has a below-average growth rate. From 1993 to 2001, the number of carpenters employed will increase by 7%.	1	1	1	1	1	1
Electrician work has a below-average growth rate. From 1993 to 2001, the number of electricians employed will increase by 7%.	0	5%	10%	10%	10%	10%

JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

	0	500	1000	1500	2000	+
Minnesota will need 560 new carpenters yearly to 2001, to fill new positions and to replace retirees.	1	1	1	1	1	1

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

	HS	+1yr	+2yr	+3yr	+4yr
H.S. graduation, plus apprenticeship or completion of 18-22 month carpentry training in a technical school.	1	1	1	1	1

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

	Poor	Caution	Fair	Good	Excellent
Job prospects are fair to good. Five technical colleges list carpentry as a field most likely to lead to related jobs. An apprenticeship official says "we've had a couple good years for both journeymen and apprentices, and we expect that this will be a continuing trend for the next 2-3 years" [if interest rates remain low]. A builders assn. says "the highly-skilled carpenter will be in demand. People who demonstrate good skills get a reputation."	1	1	1	1	1

Work in the plumbing, pipefitting & steamfitting fields has a below-average growth rate. From 1993-2001, the number employed will increase by 4%.



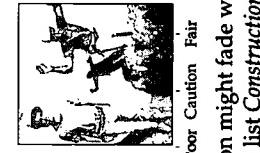
Minnesota will need 150 new plumbers, pipefitters & steamfitters yearly to 2001, to fill new positions and to replace retirees.

	0	500
Minnesota will need 150 new plumbers, pipefitters & steamfitters yearly to 2001, to fill new positions and to replace retirees.	1	0

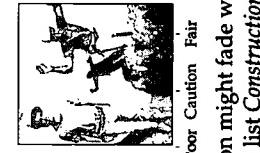
Training for electricians at a technical college lasts 18-22 mo. Apprenticeship is another option for training.



Job outlook is fair to good. An electricians union states that "construction is by its nature temporary, with peaks & valleys. In the Twin Cities, prospects will be good for the next couple years, maybe the next 4 to 5 years, because lots of big projects are coming up. However, this good situation might fade with a rapid rise in interest rates." Five tech colleges list *Construction Electrician* as one field most likely to lead to related jobs.



Job prospects should be fair to good. One union said in Aug 95, "Right now the job outlook is pretty good, but it's seasonal, of course." Another union says: "There are good & bad times for plumbers. We're in an upturn...But 3 years ago, 200 to 300 plumbers were not working." A third union says pipefitters who can service heating & air conditioning systems have the best prospects. Two tech colleges list *Plumbing* as a field highly likely to lead to jobs.



Painting and Paperhanging work has an average growth rate. From 1993 to 2001, the number of painters & paperhangers employed will increase by 9%.



Minnesota will need 210 new painters and paperhangers yearly to 2001, to take new positions and to replace retirees.

	0	500
Minnesota will need 210 new painters and paperhangers yearly to 2001, to take new positions and to replace retirees.	1	0

H.S., plus apprenticeship, or 9-11 months training at a technical college.



A Twin Cities painters union said in Aug 95 that "painters have overwhelming job availability right now; people are needed. Projects are working overtime schedules & overtime pay." The union says painting "hasn't been seasonal the last 2 winters...If they can paint, spray & are not afraid of heights, they can work steadily in this field." Also, demand has been good for paperhangars and drywall installers — contractors grab them and keep them for a long time."



Painting and Paperhanging work has an average growth rate. From 1993 to 2001, the number of painters & paperhangers employed will increase by 9%.



Minnesota will need 210 new painters and paperhangers yearly to 2001, to take new positions and to replace retirees.

	0	500
Minnesota will need 210 new painters and paperhangers yearly to 2001, to take new positions and to replace retirees.	1	0

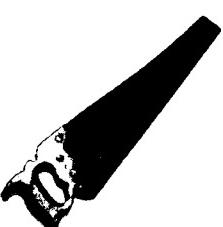
H.S., plus apprenticeship, or 9-11 months training in a technical college.



A Twin Cities painters union said in Aug 95 that "painters have overwhelming job availability right now; people are needed. Projects are working overtime schedules & overtime pay." The union says painting "hasn't been seasonal the last 2 winters...If they can paint, spray & are not afraid of heights, they can work steadily in this field." Also, demand has been good for paperhangars and drywall installers — contractors grab them and keep them for a long time."

CONSTRUCTION & DRIVING CAREERS

<u>JOB TITLE & DUTIES</u>		<u>SIZE OF OCCUPATION</u>		<u>SALARIES - LOW RANGE</u>		<u>SALARIES - MID RANGE</u>	
What kind of work do the people in this occupation do on the job.		How many paying jobs exist in this occupation in Minnesota (1993).		Half of the workers in this occupation earn at least this amount per hour (1994).		Half of the workers in this occupation earn at least this amount per hour (1994).	
<u>GENERAL BUILDING REPAIRPERSONS</u> Use more than one trade to do general repair and maintenance on machines, equipment, and/or structure of a building. Might involve plumbing, welding, machining, carpentry, electrical.	22,140 people work as general repairpersons in Minnesota.	0 10,000 20,000 30,000+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+
<u>HEAVY TRUCK DRIVERS</u> Drive tractor-trailer combination or truck with a capacity of at least 3 tons to transport and deliver goods, livestock, or materials in liquid, loose or packaged form. May be required to unload truck.	An estimated 28,500 people are employed as heavy truck drivers in Minnesota.	0 10,000 20,000 30,000+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+
<u>LIGHT TRUCK DRIVERS</u> Drive truck, van, or automobile with a capacity under 3 tons. May drive light truck to deliver or pick up merchandise and load and unload truck. Includes delivery & route drivers.	An estimated 18,500 people are employed as light truck drivers in Minnesota.	0 10,000 20,000 30,000+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+	0 5 \$5 \$10 \$15 \$20+
<u>CONSTRUCTION WORKERS</u> Bricklayers and stone masons Drywall installers & finishers	2,130 2,050	\$14.25 Not available	\$20.85 Not available	\$20.85 Not available	\$20.85 Not available	\$20.85 Not available	\$20.85 Not available
<u>VEHICLE DRIVERS</u> Bus drivers (not school bus) School bus drivers Grader, dozer, scraper operators Heavy equip. operator (Operating engineer) Highway maintenance workers	4,120 11,320 1,590 2,910 4,310	\$7.45 \$7.25 \$12.00 \$11.70 \$11.45	\$16.40 \$8.50 \$19.30 \$15.40 \$13.80	\$16.40 \$8.50 \$19.30 \$15.40 \$13.80	\$16.40 \$8.50 \$19.30 \$15.40 \$13.80	\$16.40 \$8.50 \$19.30 \$15.40 \$13.80	\$16.40 \$8.50 \$19.30 \$15.40 \$13.80



Construction
& Driver

SALES CAREERS

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

SALES REPRESENTATIVES FOR WHOLESALERS & MANUFACTURERS

Sales representatives for wholesalers & manufacturers sell goods and services to other businesses. They not only sell to established customers but also find new ones.



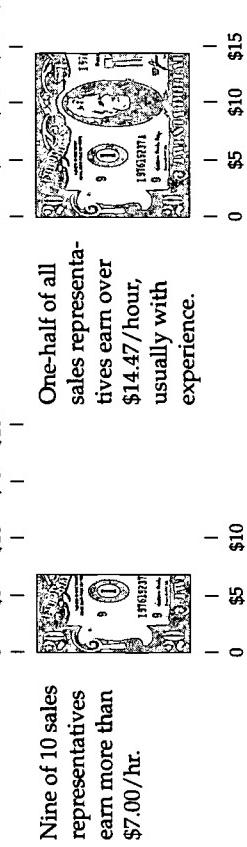
SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

	0	10,000	20,000	30,000+	
29,160 people work as sales representatives for wholesalers & manufacturers in Minnesota.	1	0	1	1	
They not only sell to established customers but also find new ones.	0	10,000	20,000	30,000+	

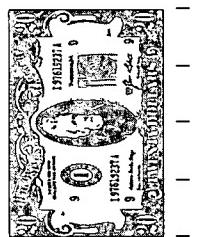
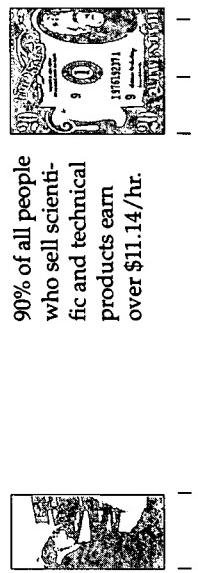
SALARIES - MID RANGE SALARIES - LOW RANGE SALARIES

Nine out of ten workers in this occupation earn at least this amount per hour (1994). Half of the workers in this occupation earn at least this amount per hour (1994).



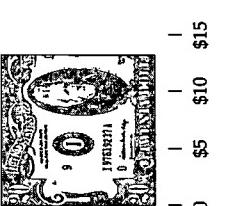
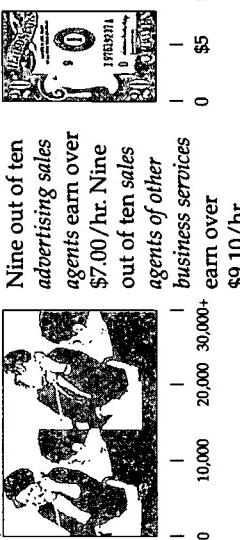
TECHNICAL SALES

Sell scientific & technical products such as aircraft or agricultural supplies, industrial machinery, medical supplies, chemicals, & instruments, by using scientific knowledge such as biology, engineering, chemistry, or electronics.



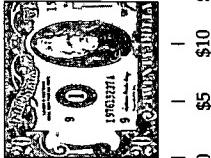
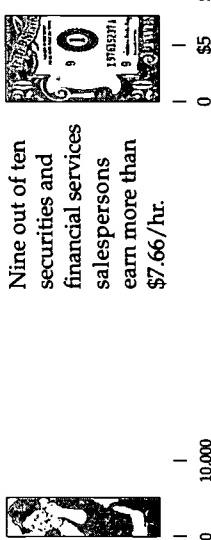
SALES AGENTS, BUSINESS SERVICES

Sell services to businesses, services such as advertising, building maintenance, credit reporting, bookkeeping, security, printing & storage (that is, services other than insurance, financial, or real estate).



SALES OF SECURITIES & FINANCIAL SERVICES

- ◆ Buy and sell securities upon customers' request; or
- ◆ Call upon businesses and individuals to sell financial services for banks and for savings and loan associations.



SALES CAREERS

JOB TITLE & DUTIES

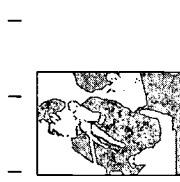
What kind of work do the people in this occupation do on the job.

INSURANCE AGENT

Sell and explain insurance to clients. Types of insurance might include life, car, household, accident, fire, endowment. Might be employed by an insurance company or might be an independent broker.

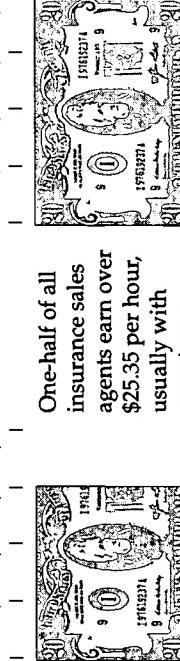
SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).



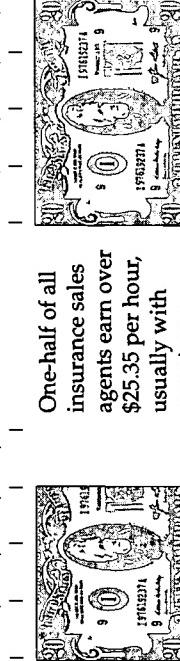
SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).



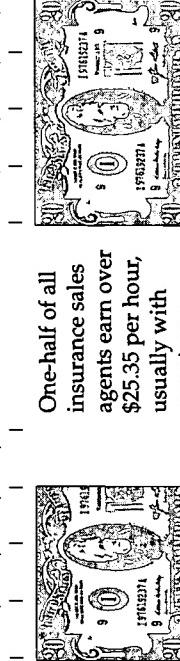
SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).



SALARIES - HIGH RANGE

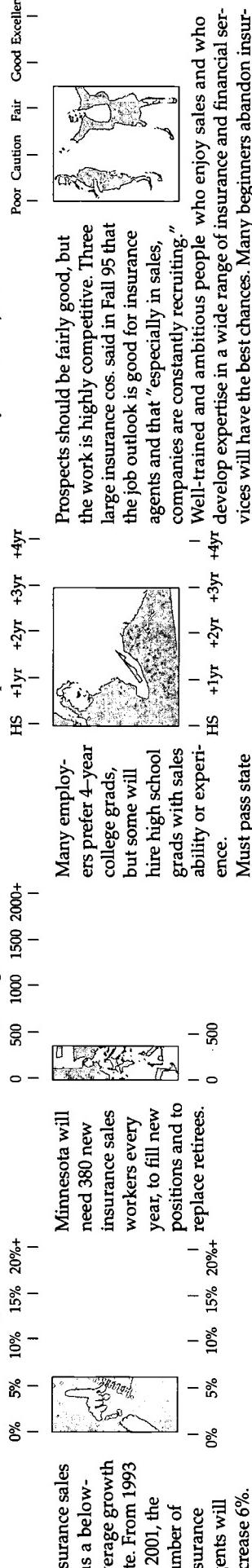
Half of the workers in this occupation earn at least this amount per hour (1994).



MORE ABOUT SALES CAREERS ON PAGE 57.

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)

	0	500	1000	1500	2000	2000+	HS	+1yr	+2yr	+3yr	+4yr	Poor	Caution	Fair	Good	Excellent
Insurance sales	1	1	1	1	1	1	Minn. will need 380 new insurance sales workers every year, to fill new positions and to replace retirees.	1	1	1	1	Many employers prefer 4-year college grads, but some will hire high school grads with sales ability or experience.	1	1	1	1
Travel & reservation work	1	1	1	1	1	1	Minn. will need 260 new workers yearly in this field until 2001, to fill new positions & to replace retirees.	1	1	1	1	Most people enter this field as clerks, secretaries, or receptionists & then promoted. Some tech colleges offer 9 mo training.	1	1	1	1
Real estate sales	1	1	1	1	1	1	Minn. will need 240 new real estate salespersons yearly, to fill new positions and to replace retirees.	1	1	1	1	Little training is required, except 90 hrs of licensing classes, available part-time at certain colleges, community colleges, tech colleges, or private schools.	1	1	1	1
New job growth for retail sales-workers	1	1	1	1	1	1	Minnesota will need 3,540 new retail salespersons per year till 2001, to fill new positions and to replace retirees.	1	1	1	1	H.S. grads preferred, then train on the job. For better-paying jobs, need extensive knowledge of the product (cars, appliances, electronics).	1	1	1	1

TRAINING NEEDED

How much full-time training is generally needed to enter this occupation?

Insurance sales	HS	+1yr	+2yr	+3yr	+4yr		Prospects should be fairly good, but the work is highly competitive. Three large insurance cos. said in Fall 95 that the job outlook is good for insurance agents and that "especially in sales, companies are constantly recruiting."
Travel & reservation work	HS	+1yr	+2yr	+3yr	+4yr		Well-trained and ambitious people who enjoy sales and who develop expertise in a wider range of insurance and financial services will have the best chances. Many beginners abandon insurance sales when they can't establish a sufficiently large clientele.
Real estate sales	HS	+1yr	+2yr	+3yr	+4yr		Depends on the economy & air fares. This field is growing very fast, but competition is strong for jobs. People who are trying to enter the travel agent field may have to accept clerical jobs in travel companies, with the hope of being promoted. Most applicants for reservationist jobs are likely to find much competition, because airline jobs attract many applicants due to the travel benefits & the glamour. But, although the outlook for new full-time reservationists is poor, it's fair to good for part-time.
New job growth for retail sales-workers	HS	+1yr	+2yr	+3yr	+4yr		Prospects should be fairly good. However, the work itself is highly competitive. Year after year many capable people enter (and leave) this field, for various reasons: It has the feel of a profession and self-employment, yet doesn't usually require an extensive related background. It's relatively easy to enter, even part-time, without much risk, because of the odd hours (working when everyone else doesn't) & because starting pay is often "commission" (or "zero").

AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?

Insurance sales	HS	+1yr	+2yr	+3yr	+4yr		Prospects should be fairly good, but the work is highly competitive. Three large insurance cos. said in Fall 95 that the job outlook is good for insurance agents and that "especially in sales, companies are constantly recruiting."
Travel & reservation work	HS	+1yr	+2yr	+3yr	+4yr		Well-trained and ambitious people who enjoy sales and who develop expertise in a wider range of insurance and financial services will have the best chances. Many beginners abandon insurance sales when they can't establish a sufficiently large clientele.
Real estate sales	HS	+1yr	+2yr	+3yr	+4yr		Depends on the economy & air fares. This field is growing very fast, but competition is strong for jobs. People who are trying to enter the travel agent field may have to accept clerical jobs in travel companies, with the hope of being promoted. Most applicants for reservationist jobs are likely to find much competition, because airline jobs attract many applicants due to the travel benefits & the glamour. But, although the outlook for new full-time reservationists is poor, it's fair to good for part-time.
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CAREERS REQUIRING 4 YEARS OF TRAINING OR MORE

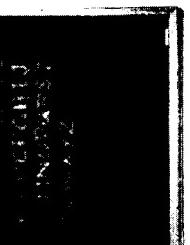
JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

Office
Careers

SPECIAL ED TEACHER

Teach elementary and secondary subjects to educationally and physically handicapped students. May specialize in such areas as mental retardation, hearing, vision.



SECONDARY TEACHERS

Instruct pupils in public or private schools in one or more subjects, such as English, math, social studies, business, phy ed, language, or voc ed. Usually specialize.



ELEMENTARY TEACHERS

Elementary, kindergarten, & pre-school teachers instruct pupils in public or private schools. They teach elemental, physical, mental, & developmental skills.



SOCIAL WORKER

Counsel and aid individuals and families requiring social service assistance. Help them to understand their problems and to deal with those problems.



LAWYERS

Conduct criminal & civil law-suits. Draw up legal documents. Advise clients as to legal rights. Practice other phases of the law. May represent client in court or before other government agencies.



CIVIL ENGINEER

Plan, design, and oversee construction & maintenance of structures and facilities, such as roads, railroads, airports, bridges, dams, power plants, water and sewage systems, etc.



INDUSTRIAL ENGINEER

Plan and oversee the use of production facilities & of personnel in a department or other subdivision of an industrial establishment.



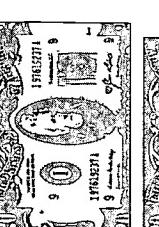
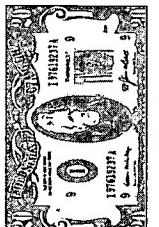
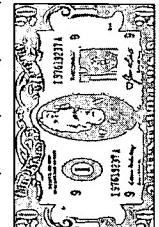
ARCHITECT

Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property.



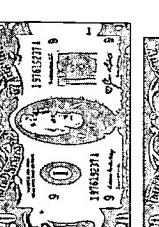
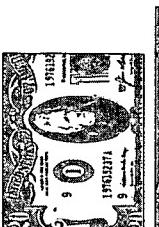
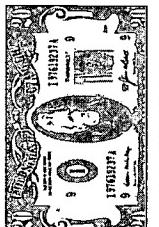
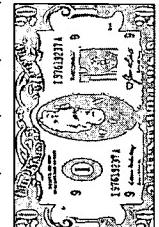
SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).



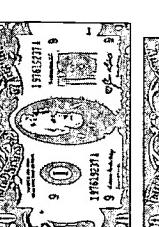
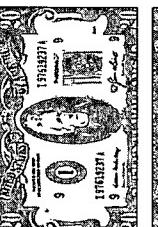
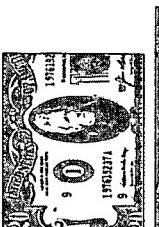
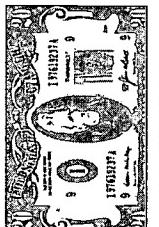
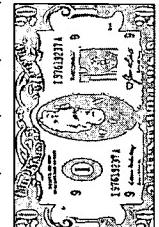
SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).



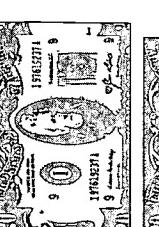
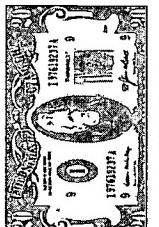
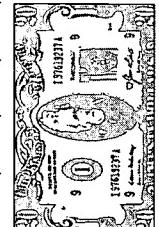
SALARIES - MID RANGE

Half of the workers in this occupation earn at least this amount per hour (1994).



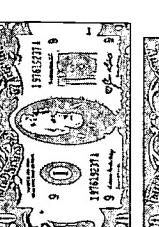
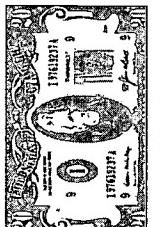
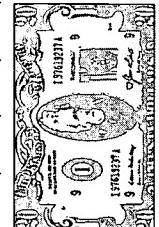
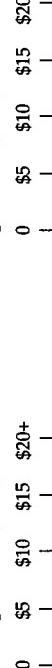
SALARIES - HIGH RANGE

One-half of all workers in this occupation earn over this amount per hour (1994).



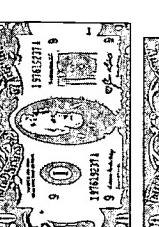
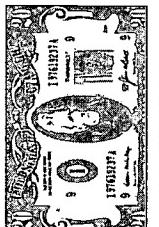
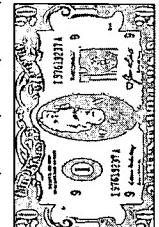
SALARIES - MID RANGE

One-half of all special education teachers earn over \$22.10/hr., usually with experience.



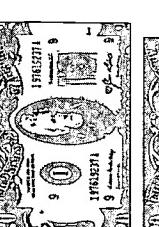
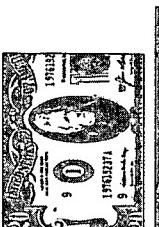
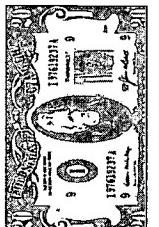
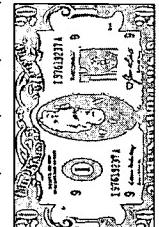
SALARIES - HIGH RANGE

One-half of all secondary teachers earn over \$22.40, usually with experience.



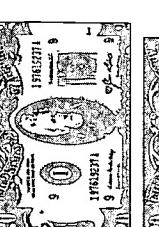
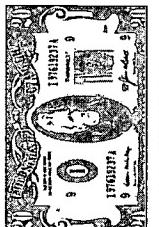
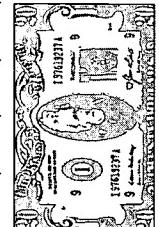
SALARIES - HIGH RANGE

One-half of all elementary & kindrgtn. teachers earn over \$21.30. Half preschool tchr. over \$13.75.



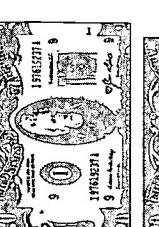
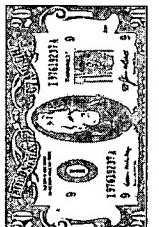
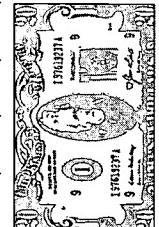
SALARIES - HIGH RANGE

One-half of all social workers earn over \$16.00 per hr., usually with experience.



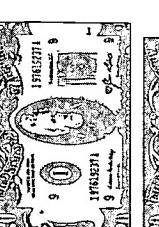
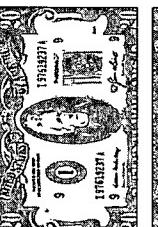
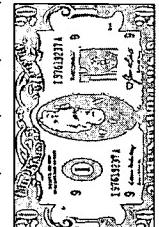
SALARIES - HIGH RANGE

One-half of all lawyers earn over \$26.30/hr., (excludes those self-employed).



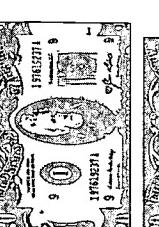
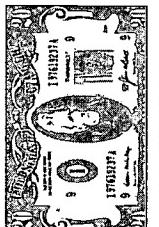
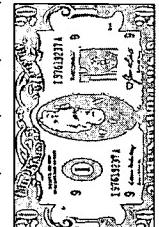
SALARIES - HIGH RANGE

One-half of all civil engineers earn over \$22.60, usually with experience.



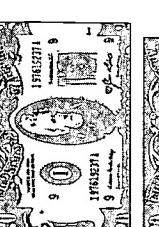
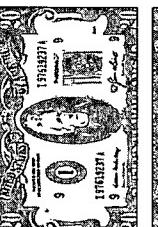
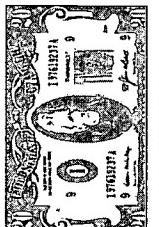
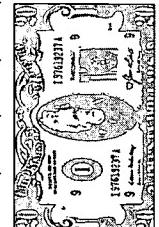
SALARIES - HIGH RANGE

One-half of all industrial engineers earn over \$19.20, usually with experience.



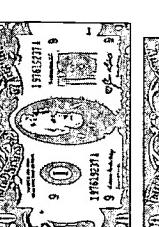
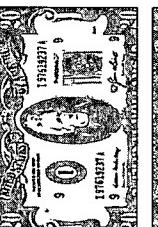
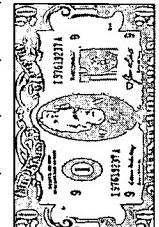
SALARIES - HIGH RANGE

One-half of all architects earn over \$10.30/hr.



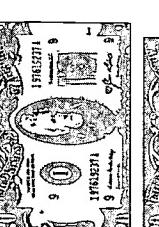
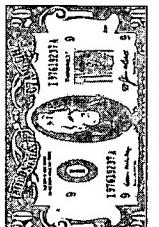
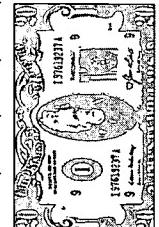
SALARIES - HIGH RANGE

One-half of all architects earn over \$17.50, usually with experience.



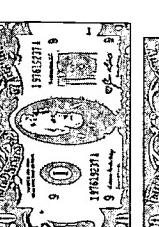
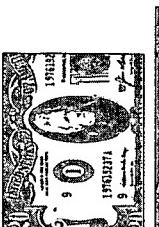
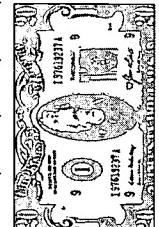
SALARIES - HIGH RANGE

One-half of all industrial engineers earn over \$19.20, usually with experience.



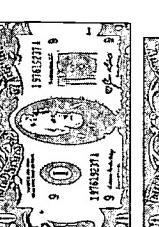
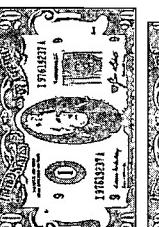
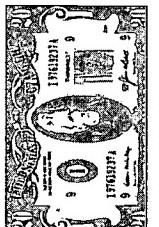
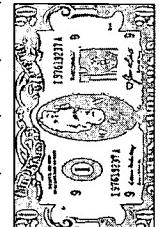
SALARIES - HIGH RANGE

One-half of all industrial engineers earn over \$19.20, usually with experience.



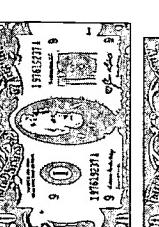
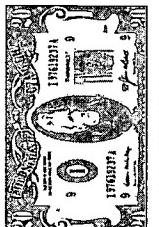
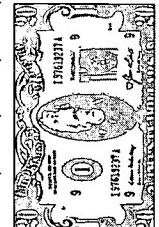
SALARIES - HIGH RANGE

One-half of all industrial engineers earn over \$19.20, usually with experience.



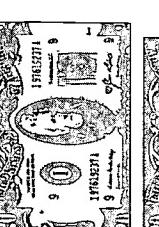
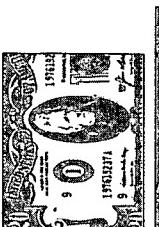
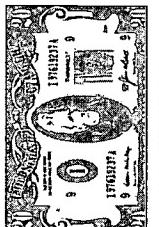
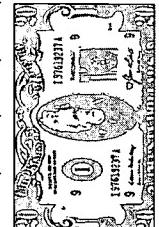
SALARIES - HIGH RANGE

One-half of all industrial engineers earn over \$19.20, usually with experience.



SALARIES - HIGH RANGE

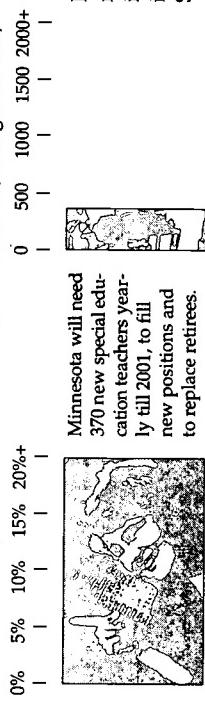
One-half of all industrial engineers earn over \$19.20, usually with experience.



MORE ABOUT THE OUTLOOK FOR TEACHERS IS INCLUDED IN MINNESOTA CAREERS 1996.

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001).



Special education teaching has a very high growth rate. From 1993-2001, the number will increase by 35%.

Secondary teaching has an average growth rate. From 1993 to 2001, the no. of sec. teachers will increase by 15%.

Elementary has a below-average growth rate. The growth rate of 7%. Preschool & kind. teaching has very fast growth of 35%.

Social work has an above-average growth rate. The no. of social workers employed will increase by 24%.

Law has an above-average growth rate. From 1993 to 2001, the number of law positions will increase by 19%.

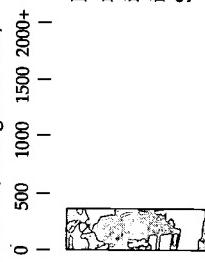
Civil engineering has an above-average growth rate. From 1993-2001, the number will increase by 18%.

Industrial engineering has a below-average growth rate. From 1993 to 2001, the number will increase by 6%.

Architecture has an average growth rate. From 1993 to 2001, the no. of architects will increase by 15%.

JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)



Minnesota will need 370 new special education teachers yearly till 2001, to fill new positions and to replace retirees.

Minnesota will need 720 new secondary teachers yearly till 2001, to fill new positions and to replace retirees.

Minn. needs 1,070 new elementary, kindergarten, & preschool teachers yearly for new positions & retirees.

Minnesota will need 410 new social workers yearly till 2001, to fill new positions and to replace retirees.

Minnesota will need 400 new lawyers each year till 2001, to fill new positions and to replace retirees.

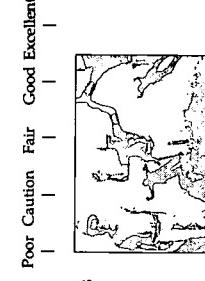
Minnesota will need 110 new civil engineers yearly to 2001, to take new positions and to replace retirees.

Minnesota will need 70 new industrial engineers yearly to 2001, to take new positions and to replace retirees.

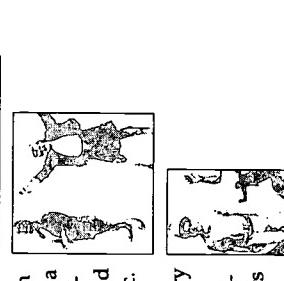
Minnesota will need 60 new architects yearly to 2001, to take new positions and to replace retirees.

AVAILABILITY OF JOBS

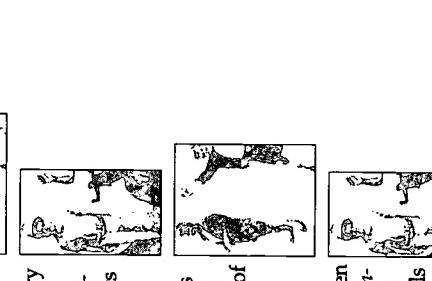
What is the job market like for this occupation? How easy is it to find jobs?



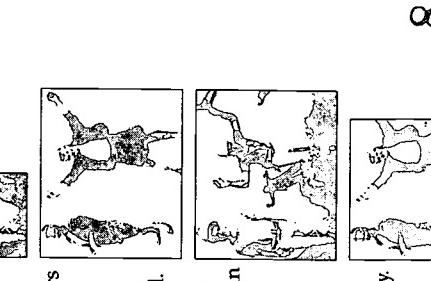
Most special ed fields have a high demand. In the Midwest, nine of ten teaching fields most in demand are special ed specialties: speech pathology (highest demand), behavioral disorders (2nd), multiple handicaps, audiology, hearing impaired, physically impaired, visually impaired, learning disability, mentally handicapped. Special ed is an occupation growing very fast from 1993 to 2001 in Minnesota.



A college placement officer says "the outlook for secondary ed is not much better than for elementary ed." Of all 1993-94 grads, 56% were placed. Some teaching areas have a fairly high demand: bilingual ed, physics, English as a 2nd language, chemistry, Spanish, & math. Many other fields have some demand, others are balanced. But health and social sciences have a surplus of job applicants. Considerable surplus in physical educ.



More job-seekers than jobs. One college placement officer says "the outlook for elementary teachers is poor. In 1993-94 only 45% of graduates were placed." The outlook is better for those who relocate to states with higher demand & for those in early childhood education or preschool (often lower pay, however). A second college notes that job prospects improved somewhat, but, still, fewer than half found teaching jobs.



Somewhat confusing. Prospects appear to be fair. However, there are some indications of a surplus of social workers statewide. The number of social work jobs will grow fast due to rising needs of the elderly, mentally ill, disabled, & persons in crisis. But some of these needs may be met through more use of paraprofessional human services workers. Also if Congress reduces welfare funds, it may cause an upheaval in this field.

Although the number of jobs for lawyers is expected to increase faster than average, keen competition for job openings is expected. While jobs are available, there are a lot more candidates than jobs. Many, many have pursued law degrees in the past 10 to 20 years. One law school expects 300-400 new jobs next year, but 800 new graduates from three schools in the Twin Cities. The school is "cautiously optimistic about present job availability."

Good prospects for employment. The U of M sees significant growth for civil engineers now and in the future, both in environmental engineering (dealing with soil, ground water concerns, etc.) and in refurbishing the infrastructure of the U.S. (roads, bridges, airports), although this depends upon govt. funding. The U of M suggests acquiring computer skills & making an early choice of environmental, transportation, or structural.

Long term: opportunities for employment should be good in Minnesota. Although the job market for industrial engineers has been tight in the recent past, it is experiencing an upswing, along with other engineering fields. Industrial engineers can still expect increasing opportunities & wage offers above those for other college grad fields.

Despite strong competition for jobs in this popular field (layoffs have occurred at big arch. firms in the last 3 or 4 years), prospects are still good for new grads. As of Summer 95 most firms were quite busy.

Competition is keen during recessions.

Skill in computer-aided design may help to land a job.

A big obstacle to entering this field is to be accepted at a school (some candidates apply year after year without success).

The only professional degree possible in Minnesota is the 6-yr. U of M master's degree.

Caution: some schools offer nonprofessional degrees—these can't be used to become an architect.

JOBS REQUIRING LITTLE OR NO TRAINING

JOB TITLE & DUTIES

What kind of work do the people in this occupation do on the job.

CASHIERS

Receive money and make change in stores, restaurants, and similar establishments. Usually involves the use of cash registers, adding machines, & change makers.

STOCK CLERK IN RETAIL STORES Receive, store, and put merchandise out onto sales floor. Stock shelves, racks, cases, bins, & tables with goods and arrange display of items. Might also count stock or check & mark merchandise.

STOCK CLERK IN STOCKROOM OR WAREHOUSE Warehouse & stockroom stock clerks receive & store materials or equipment, or they issue those items from the warehouse or stockroom. Keep records and compile stock reports.

SHIPPING & RECEIVING CLERK Traffic clerks and shipping/receiving clerks verify & keep records on incoming & outgoing shipments & prepare items for shipment. Package, address, stamp, & ship material.

CHILD CARE WORKERS Care for children at school, businesses, & institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. May need college training. (Does not include Teacher Aides)

JANITORS & CLEANERS Keep buildings clean & orderly. Perform heavy cleaning duties: operate cleaning machines, mop floors, wash walls & glass, remove trash, clean sidewalks. May perform routine maintenance (such as painting).

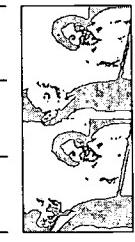
MAIDS & HOUSEKEEPING CLEANERS Clean places such as hotels, restaurants, and hospitals, offices, & stores. Or clean private homes. Dust & dry mop. In hospitals or hotels, might make beds, clean rooms & halls.

WAITRESSES & WAITERS Serve food and/or beverages to customers at tables. Usually take order from customer and make out check. Might set table & take payment from customer.

SIZE OF OCCUPATION

How many paying jobs exist in this occupation in Minnesota (1993).

Nine out of ten workers in this occupation earn at least this amount per hour (1994). Half of the workers in this occupation earn at least this amount per hour (1994).



50,620 people work as cashiers in Minnesota.



Service Careers



An estimated 22,500 people work as stock clerks on the sales floors of retail stores in Minnesota.



An estimated 13,000 people work as stock clerks in warehouses or stockrooms.



15,970 people work as shipping & receiving clerks in Minnesota.



24,330 people work as child care workers in Minnesota.



48,500 people work as maids & housekeeping cleaners in Minnesota (Estimated).



Over 43,000 people work as waitresses and waiters in Minnesota.

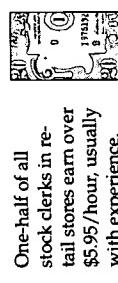


Most are paid about \$4.25/hr., but their pay plus tips may equal \$5 to \$8/hr., for some even \$10-20

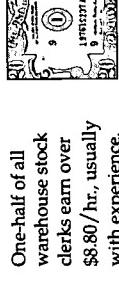
SALARIES - LOW RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

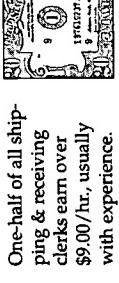
Half of the workers in this occupation earn at least this amount per hour (1994).



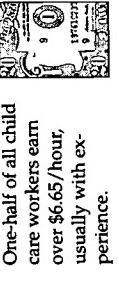
Nine out of ten cashiers earn over \$4.50/hr.



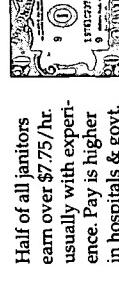
One-half of all cashiers earn over \$5.50/hr., usually with experience.



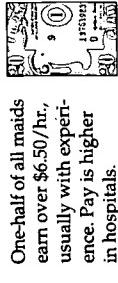
One-half of all stock clerks in retail stores earn over \$5.95/hr., usually with experience.



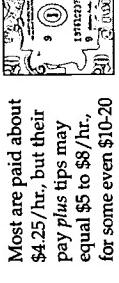
One-half of all warehouse stock clerks earn over \$8.80/hr., usually with experience.



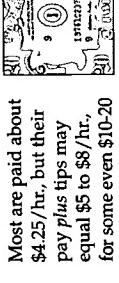
One-half of all shipping & receiving clerks earn over \$9.00/hr., usually with experience.



One-half of all child care workers earn over \$6.65/hr., usually with experience.



Half of all janitors & cleaners earn over \$8.40/hr. Pay is higher in hospitals & government.

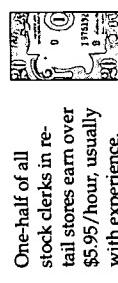


One-half of all maids earn over \$6.50/hr., usually with experience. Pay is higher in hospitals.

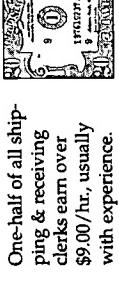
SALARIES - MID RANGE

Nine out of ten workers in this occupation earn at least this amount per hour (1994).

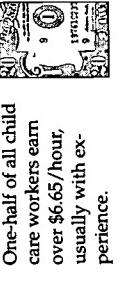
Half of the workers in this occupation earn at least this amount per hour (1994).



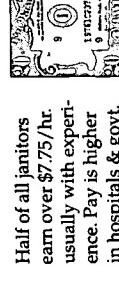
Nine out of ten cashiers earn over \$5.50/hr., usually with experience.



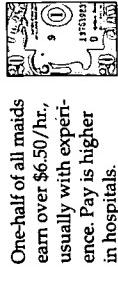
One-half of all stock clerks in retail stores earn over \$5.95/hr., usually with experience.



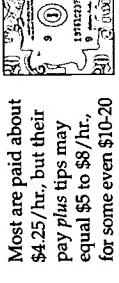
One-half of all warehouse stock clerks earn over \$8.80/hr., usually with experience.



One-half of all shipping & receiving clerks earn over \$9.00/hr., usually with experience.



One-half of all child care workers earn over \$6.65/hr., usually with experience.



Most are paid about \$4.25/hr., but their pay plus tips may equal \$5 to \$8/hr., for some even \$10-20

THE FOLLOWING TWO PAGES FOR SIMILAR OCCUPATIONS.

SURVIVAL JOBS

The occupations on pages 42 to 45 provide many jobs for teenagers, for college students, for persons who are not the main wage-earners in their families, for people who want lower-pressure second jobs in addition to full-time jobs, and for those looking for temporary employment. Salaries for these occupations generally are low and don't rise much even if a person stays on the job for several years. The tasks are usually easy to learn and are repeated over and over during the workday. Also the duties often don't require much decision-making or special skills or special knowledge.



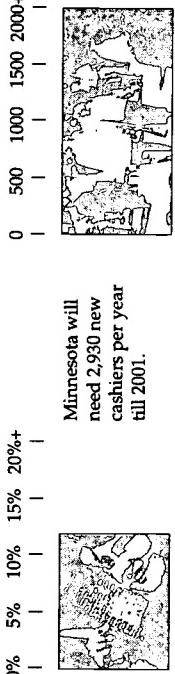
In spite of this, many adults do make their livings at the better-paying positions in each of these occupations, as office clerks, high-commission retail store sales, warehouse workers, janitors, waitresses and waiters, factory assemblers, and laborers. Often the better-paying jobs are with companies whose workers are covered by unions. On the one hand, workers can't advance too far in many of the jobs listed here. On the other hand, some people stick with them and eventually become specialists or supervisors of others,

and therefore earn higher pay.

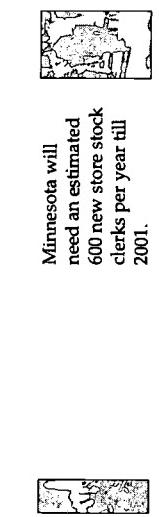


JOB OPENINGS

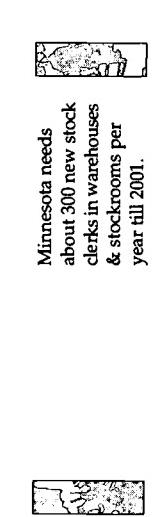
How many job openings per year will be available for new workers (average till 2001)



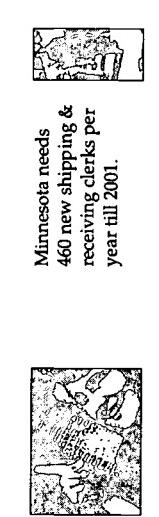
New job growth for cashiers is average. From 1993-2001, their numbers will increase by 12%.



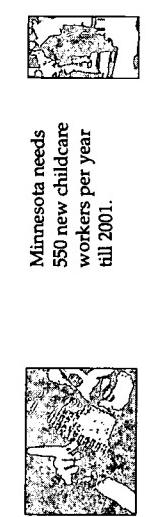
Job growth for stock clerks in stores is below-average. By 2001, their numbers will increase by 3%.



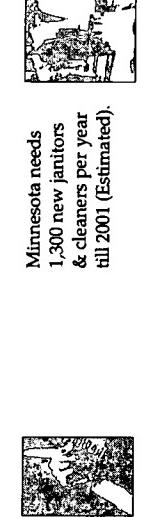
Job growth for warehouse stock clerks is below-average. Their numbers will increase by only 3%.



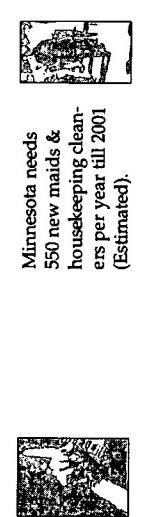
Job growth for ship & receiving clerks is average. By 2001, their numbers will increase by 13%.



Job growth for child-care workers is average. From 1993-2001, their numbers will rise by 13%.



Janitor/cleaner has a below-average growth rate. The number of jobs will increase by 7%.



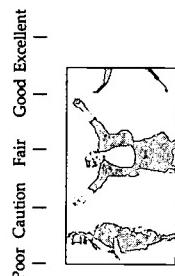
Growth for maids & housekeeping cleaners is below-average. Their numbers will rise 7%.



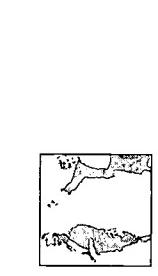
The waiting occupation is growing at an above-average rate, increasing 18% from 1993 to 2001.

AVAILABILITY OF JOBS

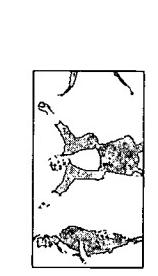
What is the job market like for this occupation? How easy is it to find jobs?



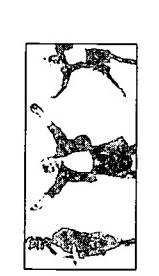
Chances are very good, but much part-time work. Shortages of cashiers in lower-paying jobs. A union says that cashiers often work "undesirable hours" in grocery stores and that career advancement is very limited.



Chances for jobs are very good for stock clerks in retail stores. But a retail store union says that stock clerks often work "undesirable hours" and that career advancement is very limited.



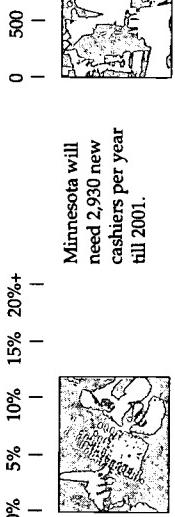
Chances should be fair for stock clerks in warehouses & stockrooms. Businesses will more often use computers for inventory control & will install automated equipment; this will hold down demand for stock clerks.



Chances should be only fair. Companies will use computers to record shipping & receiving records. Good skills to have: O Ability to keep correct records; O Forklift training; O Some computer knowledge; O Good math skills.

GROWTH RATE

How fast this occupation is growing. (Percent increase from 1993 to 2001).

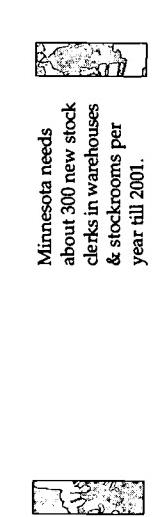


New job growth for cashiers is average.

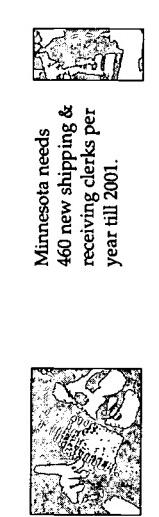
From 1993-2001,

their numbers will

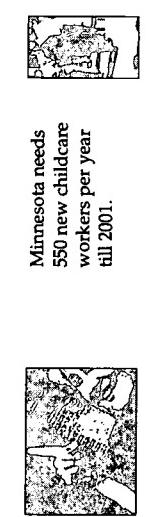
increase by 12%.



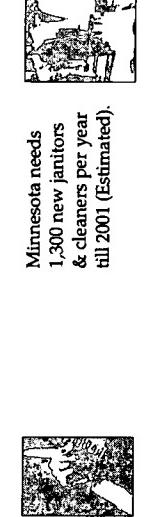
Job growth for warehouse stock clerks is below-average. Their numbers will increase by only 3%.



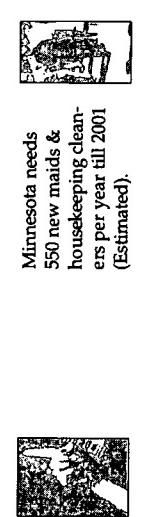
Job growth for ship & receiving clerks is average. By 2001, their numbers will increase by 13%.



Job growth for child-care workers is average. From 1993-2001, their numbers will rise by 13%.



Janitor/cleaner has a below-average growth rate. The number of jobs will increase by 7%.



Growth for maids & housekeeping cleaners is below-average. Their numbers will rise 7%.



The waiting occupation is growing at an above-average rate, increasing 18% from 1993 to 2001.

MORE JOBS REQUIRING LITTLE OR NO TRAINING

JOB TITLE & DUTIES		SIZE OF OCCUPATION		SALARIES - LOW RANGE		SALARIES - MID RANGE	
What kind of work do the people in this occupation do on the job.							
BARTENDERS Mix & serve alcoholic and non-alcoholic beverages to customers of a bar. Follow standard recipes for mixing drinks.	Over 10,000 people work as bartenders in Minnesota.	0 10,000 20,000 30,000+	0 1 1 1	\$5 \$10 \$15 \$20+	\$5 \$10 \$15 \$20+	\$5 \$10 \$15 \$20+	\$5 \$10 \$15 \$20+
FOOD COUNTER WORKERS Work at a food counter in a restaurant, store, or delicatessen, performing such duties as taking food & beverage orders, preparing cold foods, cleaning counter areas.	36,600 people work as food counter workers in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten food counter workers earn over \$4.25/hr plus tips.	Nine out of ten bartenders earn over \$4.55/hr plus tips.	One-half of all bartenders earn over \$6/hour, plus tips.	One-half of all bartenders earn over \$6/hour, plus tips.
FOOD PREPARATION WORKERS Perform food prep duties, such as preparing cold foods and maintaining & cleaning kitchen work areas & equipment. Perform simple tasks like cleaning shellfish or slicing meat. May brew coffee.	28,000 people work as food prep workers & kitchen helpers in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten food prep workers earn over \$5.00/hr.	Nine out of ten food prep workers earn over \$5.00/hr.	One-half of all food prep workers earn over \$6.50/hr., usually with experience.	One-half of all food prep workers earn over \$6.50/hr., usually with experience.
EAST FOOD/SHORT ORDER COOK Either: ○ Cook in a fast food restaurant with a limited menu, usually cooking just 1 or 2 basic items such as hamburgers or pizza, or ○ Cook food that requires only a short preparation time.	Over 14,000 people work as fast food cooks & short order cooks in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten fast food cooks & short order cooks earn over \$4.45/hr.	Nine out of ten fast food cooks & short order cooks earn over \$4.45/hr.	One-half of all food cooks & short order cooks earn over \$5.25/hr.	One-half of all food cooks & short order cooks earn over \$5.25/hr.
ASSEMBLERS & FABRICATORS (Not including electrical, electronic, machine assembly) Assemble or fit together parts to form complete units or subassemblies, at a bench, conveyor line, or on a floor. May use hand tools & power tools.	27,000 work as fabricators & assemblers (not including electrical, electronic or machine assembly).	0 1 1 1	0 1 1 1	Nine out of ten of these assemblers & fabricators earn over \$6.00/hr.	Nine out of ten of these assemblers & fabricators earn over \$6.00/hr.	One-half of these assemblers & fabricators earn over \$8.75/hr., usually with experience.	One-half of these assemblers & fabricators earn over \$8.75/hr., usually with experience.
HAND PACKERS & PACKAGERS Pack or package by hand a wide variety of products and materials. (Includes only workers whose jobs require only a very small amount of training on the job.)	Over 14,000 hand packers & hand packagers work in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten hand packers earn over \$5.50/hr.	Nine out of ten hand packers earn over \$5.50/hr.	One-half of all hand packers earn over \$7.10/hr., usually with experience.	One-half of all hand packers earn over \$7.10/hr., usually with experience.
GUARDS & WATCHGUARDS Stand guard at entrance gate/door, or walk or drive about the premises of a business or industrial plant to prevent theft, violence, or infractions of rules. Guard property against fire, vandalism, illegal entry.	8,000 people work as guards & watchguards in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten guards earn over \$5.45/hr.	Nine out of ten guards earn over \$5.45/hr.	One-half of all guards earn over \$7.25/hr., usually with experience.	One-half of all guards earn over \$7.25/hr., usually with experience.
GARDENERS & GROUNDSKEEPERS Maintain grounds of public or private property using hand or power tools. Perform such tasks as mowing, trimming, planting, watering, fertilizing, digging, raking, & sweeping.	Over 8,000 people work as gardeners & groundskeepers in Minnesota.	0 1 1 1	0 1 1 1	Nine out of ten groundspersons earn over \$5.20/hr.	Nine out of ten groundspersons earn over \$5.20/hr.	One-half of all groundspersons earn over \$9.00/hr., usually with experience.	One-half of all groundspersons earn over \$9.00/hr., usually with experience.



SEE PAGES 42 & 43 FOR SIMILAR OCCUPATIONS.

45

GROWTH RATE

How fast this occupation is growing.
(Percent increase from 1993 to 2001)



Bartending has a *decreasing* growth rate. From 1993 to 2001, their numbers will *decrease* 5%.



New job growth for food prep workers is above average. Their numbers will increase by 19%.



Minnesota still needs 280 new bartenders per year till 2001 to replace workers who retire.

Minnesota needs 1,580 new food prep workers per year till 2001.



Assembler is a field that has a below-average growth rate from 1993-2001. The increase will be 3%.



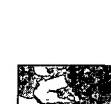
Minnesota will still need 530 new assemblers yearly, mostly to replace those who quit.



520 new hand packers are needed yearly till 2001 to replace retirees.



Guard work is growing at an above-average rate, increasing by 24%.



Job growth for groundskeepers is average. By 2001, their numbers will increase 13%.



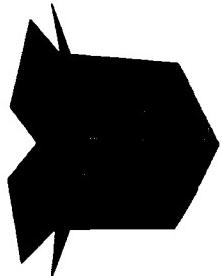
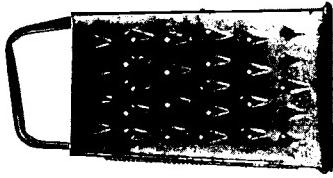
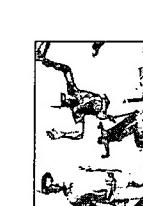
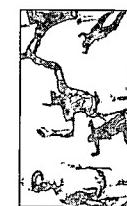
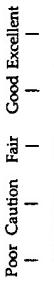
JOB OPENINGS

How many job openings per year will be available for new workers (average till 2001)



AVAILABILITY OF JOBS

What is the job market like for this occupation? How easy is it to find jobs?



91

AND POPULAR OCCUPATIONS WITH FEW JOB OPENINGS

Sad but true, certain popular and glamorous occupations do not have enough job openings to match the number of people who train to enter those fields. Some obvious examples are *TV and movie stars, professional athletes, rock stars, and fashion models*. The chance of making a regular living in the those fields is very slim. In recent years, someone figured out that each high school athlete had only a 10,000 to 1

chance of becoming a professional athlete.

The following list includes some less glamorous occupations which also don't appear to have enough job openings to match the number of people who prepare for them and try to enter them. Although some of these occupations have predictions for over 100 yearly job openings, the number of persons qualified and interested in pursuing these openings exceeds

1993 Number of MN Employees	Yearly Job Openings 1993-2001
-----------------------------------	-------------------------------------

PROFESSIONAL SPECIALISTS

	1993 Number of MN Employees	Yearly Job Openings 1993-2001	1993 Number of MN Employees	Yearly Job Openings 1993-2001
PROFESSIONAL SPECIALISTS				
Lawyers	10,580	400	Writer, editor, technical writer	5,350
Employment interviewers	1,240	40	Reporters and correspondents	1,110
Personnel, training, & labor relations specialists	5,310	230	Public relations specialists	1,910
Insurance adjusters, investigators	3,250	130	Designers** (see p. 24 for types)	6,210
Architects	1,750	60	Commercial artists & related** (see p. 24)	4,200
Landscape architects	210	10	Musicians**	4,040
Economists, market analysis	660	40	Dancers and choreographers**	130
Urban and regional planners	830	30	Entertainers: actor/director/producer**	1,580
Psychologists	3,320	120	Radio & TV announcer/newscaster	1,180
Recreation workers	4,660	170	Photographers**	1,840
Foresters	730	30	Camera operators, TV & movie	250
Librarians	2,610	70	Broadcast technicians	430
Paralegals	1,600	100		0
Curators, archivists, museum tech	170	10		10
MECHANICAL & CONSTRUCTION				
Motorcycle repairers	170	10	MEDICAL	
Small engine specialists	920	40	Veterinarians, vet. inspectors	1,290
Jewelers and silversmiths	460	10	Recreation therapists	910
Operating engineers (Heavy equipment)	2,910	60	Emergency medical technicians	1,980
SCIENTIFIC				
Chemists	1,810	80	Dietitians and nutritionists	860
Biological scientists	660	30	Electrocardiograph tech (EKG)	210
TRAVEL				
Travel agents	2,260	130	SCIENTIFIC	
Aircraft pilots, flight engineers		numbers not available	Chemists	1,810
Flight attendants		numbers not available	Biological scientists	660
PROTECTIVE SERVICE				
			Fire fighters	80
			Police patrol officers	30
				270

** The Arts: People who have an interest in fine arts or performing arts typically will usually have to gain

satisfaction from creating and performing as a hobby or avocation, in community theater, amateur bands

& orchestras, painting and drawing groups, amateur dance companies, community cable TV, etc.

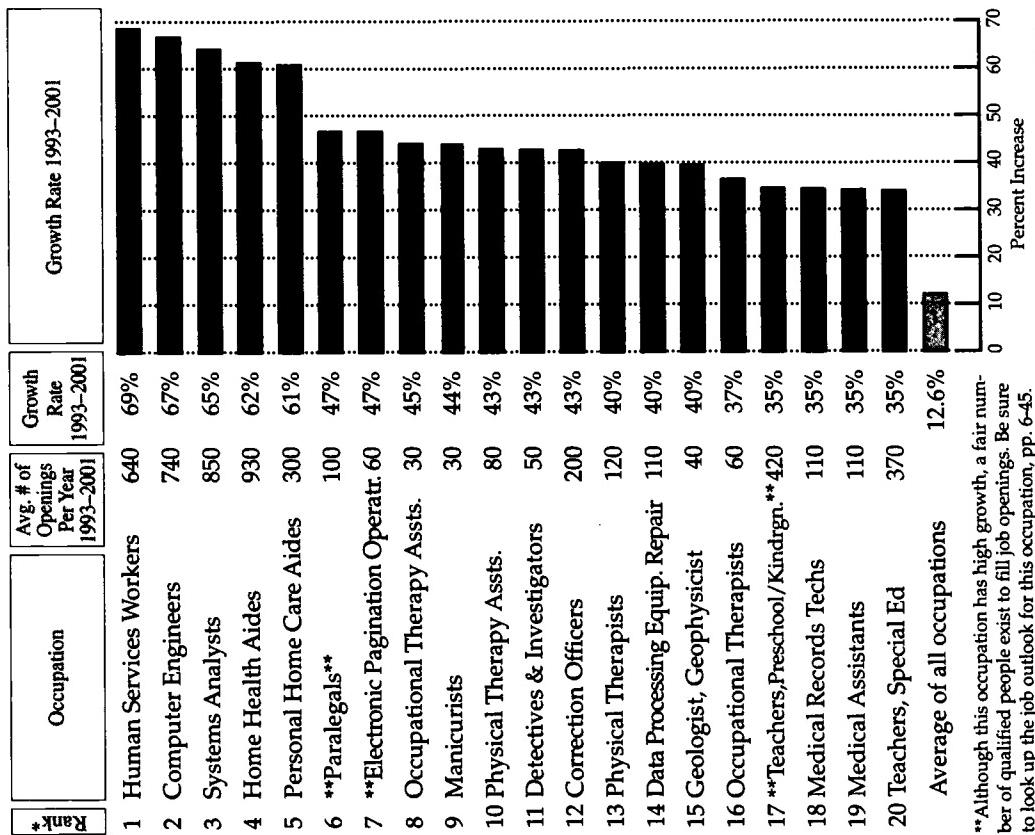


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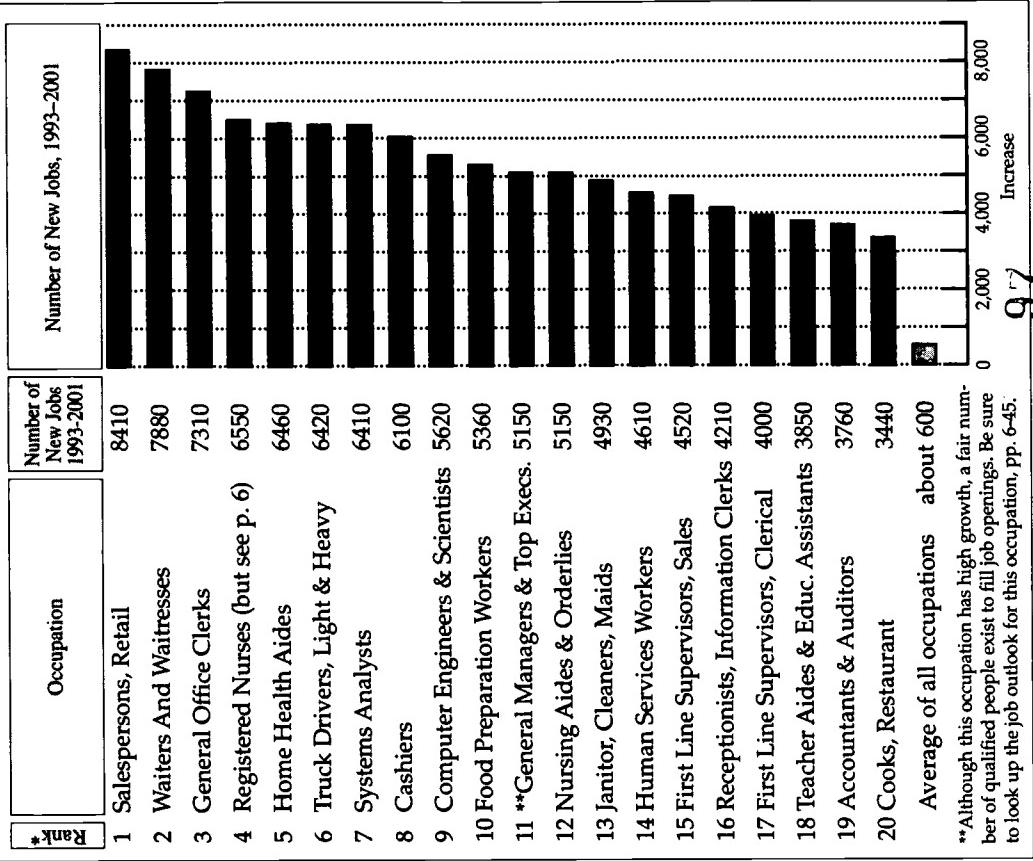
**But with caution: some of these fields
have too many applicants.**

GROWING OCCUPATIONS

FASTEST-GROWING OCCUPATIONS
MINNESOTA
1993 TO 2001
Out of about 500 Occupations



OCCUPATIONS WITH THE GREATEST NUMBER OF PREDICTED NEW JOBS
MINNESOTA
1993 TO 2001
Out of about 500 Occupations



TWO OTHER WAYS OF LOOKING AT THESE FIELDS

FAST-GROWING MINNESOTA OCCUPATIONS WHICH ARE PREDICTED TO HAVE A LARGE NUMBER OF JOB OPENINGS*

MINNESOTA 1993 - 2001

Out of about 500 Occupations

Rank*	Occupation	Growth Rate 1993-2001	Number of New Jobs, 1993-2001
1	Home Health Aides	62%	6,460
2	Computer Systems Analysts	65%	6,410
3	Computer Engineers & Scientists	67%	5,620
4	Human Services Workers	69%	4,610
5	** Preschool and Kindergarten Teachers**	35%	2,850
5	Personal & Home Care Aides	61%	2,130
7	Special Education Teachers	35%	2,440
8	Correction Officers & Jailers	43%	1,350
9	Restaurant Cooks	24%	3,440
9	Legal Secretaries	30%	1,540
11	Amusement & Recreation Attendants	24%	2,840
12	**Marketing, Advertising & Pub. Relations Mgrs.**	24%	2,610
13	**Social Workers, including Medical & Psychiatric Guards & Watch Guards	24%	2,540
14	**Physicians & Surgeons**	24%	1,920
16	**Paralegal Personnel**	23%	2,540
17	Data Processing Equipment Repairers	47%	750
18	Bread & Pastry Bakers	40%	770
19	**Personnel/ Training/ Labor Relations Specialists**	25%	1,020
20	**Radiologic Technologists & Technicians**	24%	1,270
20	Insurance Adjusters, Examiners, Investigators	31%	810
22	Laundry/ Drycleaning Machine Operators	28%	910
22	Physical Therapists	25%	930
24	Food Preparation Workers	40%	730
25	Waiters & Waitresses	19%	5,360
26	Teacher Aides, Clerical & Paraprofessional	18%	7,880
27	Medical Assistants	20%	3,850
27	Bill & Account Collectors	35%	680
29	Medical Records Technicians	24%	930
30	Counter & Rental Clerks	35%	680
21%	21%	21%	1,790

*Although this occupation has high growth, a fair number of qualified people exist to fill job openings. Be sure to look up the job outlook for this occupation on pages 6-45.

*These occupations are double-ranked by percentage growth and the number of new openings, 1993 to 2001. In our double-ranking procedure, we first ranked all occupations in two lists: by percentage growth and by number of new openings. We took each occupation's rank in the percentage growth list and added that to its rank in the new openings list. We did a new ranking based on the sums. So percentage growth and the number of new openings received equal weight.

Minn. Dept. of Economic Security, Research Office, Aug.-95

LARGE MINNESOTA OCCUPATIONS WITH HIGH GROWTH RATES AND FAIR SALARIES

OCCUPATIONS WITH: 1993 EMPLOYMENT AT LEAST 3,100;
EXPECTED GROWTH FROM 1993 - 2001 OF AT LEAST 17%;
AND 1994 MEDIAN WAGES ABOVE \$10.00 PER HOUR.

Rank*	Occupation	Estimated No. of Workers 1993	Growth Rate 1993-2001	1994 Median Wage
1	Human Services Workers	6,680	69%	\$10.62
2	Computer Engineers & Computer Scientists	8,350	67%	\$23.54
3	Computer Systems Analysts	9,920	65%	\$22.92
4	Correction Officers & Jailers	3,130	43%	\$14.13
5	**Preschool (\$14) & Kindergarten Teachers (\$22)	8,120	35%	<<See Note
6	Special Education Teachers	7,060	35%	\$22.12
7	Legal Secretaries	5,180	30%	\$14.14
8	Insurance Adjusters, Examiners, Investigators	3,250	28%	\$14.94
9	**Psychologists**	3,320	24%	\$20.60
10	**Personnel/Training/Labor Relation Specialists**	5,310	24%	\$16.23
11	**Marketing, Advertising & Pub. Rel. Mgrs.**	10,880	24%	\$22.64
12	**Social Workers, including Medical & Psychiatric	10,640	24%	\$15.80
13	Property & Real Estate Managers	3,460	23%	\$19.47
14	**Physicians & Surgeons**	10,990	23%	\$55.58
15	Mechanical Engineers	4,040	21%	\$20.44
16	Natural Sciences & Math Technicians	4,570	21%	\$10.91
17	Loan Officers & Counselors	5,830	20%	\$16.75
18	**Lawyers**	10,880	19%	\$26.27
19	Dental Assistants	3,920	19%	\$12.00
20	Food Service & Lodging Managers	10,200	19%	\$10.34
21	Highway Maintenance Workers	4,310	18%	\$13.80
22	Accountants & Auditors (likely to need 4 yrs. college)	20,670	18%	\$15.56
23	Vocational Education Teachers & Instructors	3,760	18%	\$22.81
24	Construction Managers	3,480	18%	\$23.08
25	Securities & Financial Services Sales Agents	5,240	18%	\$13.85
26	**Management Analysts**	3,140	18%	\$17.89
27	Registered Nurses (but see p. 6)	37,110	18%	\$16.93
28	**Writers & Editors, including Tech Writers**	5,350	17%	\$16.06
29	**College & University Faculty**	12,810	17%	\$23.94
30	Engineering, Math, & Sciences Managers	6,980	17%	\$29.53
31	Automotive Body & Related Repairers	3,980	17%	\$12.90
32	Licensed Practical Nurses	17,430	17%	\$11.05
33	Welders & Cutters	6,610	17%	\$11.27

The occupations in this table are ranked in order of their growth rates, 1993 to 2001.

Note: Does not account for supply of qualified workers or competition for openings.

**Although this occupation has high growth, a fair number of qualified people exist to fill job openings. Be sure to look up the job outlook for this occupation on pages 6-45.

*These occupations are double-ranked by percentage growth and the number of new openings. We took each occupation's rank in the percentage growth list and added that to its rank in the new openings list. We did a new ranking based on the sums. So percentage growth and the number of new openings received equal weight.

MORE ABOUT MEDICAL CAREERS

health care industry's emphasis is

on keeping patients out of hospitals or limiting the time they stay.

And, presumably, the shorter the hospital stays are, the fewer RNs are needed. Thus, in 1994 & into 1995, fewer and fewer RN jobs were available.

But the situation changed halfway through 1995. Andy Calkins, spokesperson for the Minnesota Nurses Association, reiterated in February 1996 that job prospects since mid-1995 have been better than the previous period:

"Hospitals are going at full capacity right now. Virtually all are hiring. ... While we do see a decreasing of in-patient care [patients assigned beds in hospitals], the status of RN jobs is holding steady. There are fewer patients in hospitals, but they have higher acuity [more severe illness]. There's definitely a lot more out-patient treatment [patients treated at hospitals without staying overnight]. Whenever possible, hospitals are moving into out-patient. But the need for RNs in hospitals is [pretty good]. Demand is back to where it was."

And, because of the aging population, experts predict in the next 10 years the number of nurses needed will increase quite fast.

However, says Mr. Calkins, "The whole health care environment is somewhat volatile. There's still the pressure for cost containment. Hospitals are still looking at restructuring how care is delivered. But they seem to have backed off the really dramatic change that they intended—using fewer RNs & more nurse assistants... It didn't really work out as well as they planned."

A sizeable majority of RNs still work in hospitals, Mr. Calkins says.

but the settings in which they practice are slowly starting to change—more will be involved in outpatient care and home care, so the percentage in hospitals will diminish somewhat, to perhaps 50%. Nursing opportunities will grow in the following:

- preventive care; home visitation (for example, to high-risk teenage mothers);
- home health care;
- same day surgery;
- call-in services for health care plans to decide whether callers need to see a doctor or not;
- case management, that is, determining whether hospital or nursing home patients can be diverted to less costly treatments.

○ nursing home care: a nursing home association says that there's a need for more & more RNs in nursing homes, due to influx of patients "who have been stabilized in a hospital & are transferred to a nursing home where they might receive further treatment such as drug therapy, occupational therapy, and physical therapy" which they may have received in hospitals in the past, at a higher cost. So nursing homes are getting them "sicker and quicker." And that necessitates employing more RNs in nursing homes "because they can perform more technical functions than other health workers."

So, if you are considering a health career, and if you have good basic abilities, don't be scared off by the continuing turmoil. As one authority said in *CityBusiness* (Sept 1994): "There will continue to be a place and role for acute care hospitals and nurses." We will definitely need a large, continuous supply of nurses and other medical workers.

In regard to training to be an RN, Mr. Calkins says that "The trend toward 4-year degrees is slowly coming; we see it down the road. That day is coming. But it's not here yet. Two-thirds of new RNs are from 2-yr. programs, because it's a much quicker way to get into the RN field, much less expense."

◆ LICENSED PRACTICAL NURSES

Nationally, the number of LPNs is will grow faster-than-average in response to general demand & the long-term care needs of a rapidly growing elderly population. Job prospects should remain excellent unless the number of people completing LPN training increases substantially.

An LPN union said in July 1995 that "Nursing homes especially are having trouble—they cannot find enough LPNs. As a result they're using a lot of pool help [temporary agencies], which is not satisfactory. We do not think the shortage is as great outside metro area."

An LPN association also says that "future prospects are good." In addition, seven technical and community colleges list LPN as a field *most likely* to lead to jobs which pay relatively well.

■ HOME HEALTH CARE

◆ HOME HEALTH AIDS

Topping the list of fastest growing occupations nationally from 1994 to 2005 are two lower-paying occupations in the burgeoning home health field:

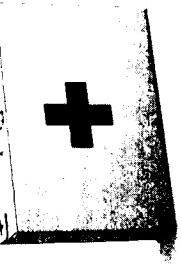
- | | |
|---|---|
| Personal & home care aides
(119% increase 1994-2005) | Home health aide
(102% increase 1994-2005) |
|---|---|

The average growth rate for all

occupations is predicted at 14%. However, these two occupations are predicted to grow at these outstanding rates which are 8 and 9 times higher than the average rate. This high growth is due to several factors, such as:

- a substantial increase in the elderly population;
- greater efforts to provide home care for people who have long-term illness instead of assigning them to nursing homes, and
- development of in-home medical technologies.

Job opportunities are excellent. It's possible to enter this field with a short amount of training, similar to the training of nurse assistants which is a matter of weeks. Salaries however, are relatively low in comparison to other occupations —about \$6.00 per hour to start.



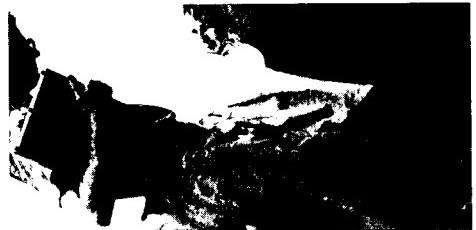
In regard to training to be an RN,

Mr. Calkins says that "The trend toward 4-year degrees is slowly coming; we see it down the road. That day is coming. But it's not here yet. Two-thirds of new RNs are from 2-yr. programs, because it's a much quicker way to get into the RN field, much less expense."

◆ REGISTERED NURSES—RNs

Nursing, one of Minnesota's largest professions, is undergoing a tremendous change right now, as is health care in general. Because nursing is a large occupation, many new workers will continue to be needed every year to replace those who retire or leave the profession. On the list of occupations with the greatest number of predicted new jobs in Minnesota from 1993 to 2001 (p. 33), registered nurse ranks #4.

However, at the present time, the nursing profession and other health careers are being affected by two major forces—rising medical costs and the aging population. From 1984 to 1994, medical costs to Twin Cities area consumers, for example, rose 87%, compared to overall price increases of 39%. Add to that the fact that the baby boomers are getting older. Older people require more medical care. So the big danger is that rising medical costs, multiplied by the significantly greater numbers of people who need medical care, may overwhelm the nation economically. To deal with these high costs, the



Medical Careers

Technical

Service Careers

101

ALSO SEE PAGES 6 TO 11 FOR HEALTH CAREERS

-)) Patient hygiene and grooming
-)) Safe lifting technique, etc.
-)) Moving/turning patient in bed
-)) Nutrition and fluid intake.

of **EKG TECHNICIANS** is expected to decrease as hospitals train nurses and other personnel to perform basic EKG procedures. Employment of **CARDIOLOGY TECHNOLOGISTS** is expected to grow faster than average as the population grows because older people have a higher incidence of heart problems. **EEG TECHS:** Employment is expected to grow much faster than average, reflecting the increased number of neuro-diagnostic tests performed. More testing will occur as new tests and procedures are developed and as the aging population requires more medical care. **CHIROPRACTORS:** This field will grow faster than average due to rapid growth in the older population.

NURSES IN HOME HEALTH CARE regard to nurses in home health care, Debra Kildahl, official of the Minnesota Home Care Assn. says, "We're talking about RNs rather than LPNs because LPNs can't do initial assessments and plan treatment—they're not licensed to. LPNs are in home care too, but not prevalent. For RNs, home health care offers good opportunities, especially for those with public health experience or certification."

Mrs. Calkins of the nurses assn. says that "Home health care is one of

though the growth rate is high, the home health field is still quite small, so the numbers of RNs involved is not large, like 2-3% of the total number of RNs. But it is in this direction health care is headed rather than acute care in hospitals. The emphasis is on shorter hospital stays, with more home visits afterward."

ACCEPT WHERE NOTED, THE FOLLOWING STATEMENTS ARE ABOUT THE NATIONAL OUTLOOK FOR SMALLER-SIZED MEDICAL CAREERS.

BIO-MEDICAL TECHNICIAN: One school listed Bio-Med Tech as one of their programs least likely to lead to related jobs. This coincides with other evidence that this is a cutted field.

CARDIOVASCULAR TECHS: Overall employment is expected to grow more slowly than average, but technicians and technologists will experience different patterns of employment change. Employment

pations in Minnesota from 1993 to 2001 (the 18th fastest), with a 35% increase.

- **NUCLEAR MEDICINE TECHNS.**
Employment is expected to grow much faster than average. Substantial growth in the number of middle-aged and older people will spur demand for nuclear medicine tests. Technological innovations should increase the uses of nuclear medicine, further strengthening demand
- **OCCUPATIONAL THERAPISTS:**
Employment is expected to grow much faster than average due to strong growth in rehabilitative services. Medical advances now make it possible for more patients with critical problems to survive and need therapy. Also, as the baby-

ble age, the incidence of heart attack and stroke will increase. The rapidly growing population 75 years of age and above, and disabled children entering special education programs, will spur further demand. A Minnesota home health care association says the job outlook right now for occupational therapists in home health care is

In the metropolitan area (best in Twin Cities). In rural areas, employers may contract for services rather than hire. Occupational therapy is one of the fastest-growing occupations in Minnesota from 1993 to 2001 (the 16th fastest), with a 37% increase.

- ◆ **OCCUPATIONAL THERAPY ASSISTANTS:** The job outlook is very good. Two technical & community colleges list occupational therapy assistant as a field most likely to lead to related jobs. Occupational therapy assistant is one of the fastest-growing occupations in Minnesota from 1993 to 2001 (the 8th fastest), with a 45% increase.

◆ **PHYSICAL THERAPISTS:** Job outlook is excellent, but it's extremely hard to get into available training and services for the disabled. The growing number of older people is expected to spur job

**► PHYSICAL THERAPY ASSISTANTS
(& CORRECTIVE THERAPY ASSTS.):**

Job outlook is very good. Three technical and community colleges list physical therapist assistant as a field most likely to lead to related jobs, and three said it is a field most likely to lead to jobs which pay relatively well. Physical therapy assistant is one of the fastest-growing occupations in Minnesota from 1993 to 2001 (the 10th fastest), with a 43% increase.

growth for activity directors in nursing homes, retirement communities, adult day care programs and social service agencies.

Continued growth is expected in community residential facilities as well as in day care programs for people with disabilities. Job prospects are expected to be best for those with clinical experience.

◆ **RESPIRATORY THERAPISTS:**

Employment is expected to grow much faster than average because of the substantial growth in the middle-aged and elderly population. An older population is more likely to suffer from diseases such

PHYSICIAN ASSISTANTS: Employment is expected to grow faster than average through 2005 as physician assistants take on more responsibilities. Demand will be greatest in medical specialties such as family practice, internal medicine, and pediatrics. The number of patients with AIDS also will boost demand since lung disease often accompanies AIDS. And because more premature infants now survive, job opportunities are expected to be highly favorable for those with neonatal care skills. A Minnesota home health care association

says an job outlook right now is quite good.

Two technical & community colleges list respiratory care practitioner as a field most likely to lead to related jobs, & four said it is a field most likely to lead to jobs which pay relatively well.

◆ **SURGICAL TECHS:** Much faster than average growth is expected as a growing population & technological advances increase the number of surgical procedures performed. Growth will be fastest in clinics and offices of physicians due to increased out-patient surgery; however, most jobs will be in hospitals.

of the health services industry and increased emphasis on cost containment & primary care. Job prospects will be excellent, especially in rural and low-income areas that have difficulty attracting physicians.

◆ **PSYCHIATRIC AIDES:** The number of jobs for psychiatric aides will grow faster than average to meet the needs of the very old and of those suffering from psychiatric and drug abuse problems.

◆ **RECREATIONAL THERAPISTS:** Employment is expected to grow faster than average, because of expansion in long-term care, physical and psychiatric rehabilitation,

and services for the disabled. The growing number of older people is expected to spur job

growth for activity directors in nursing homes, retirement communities, adult day care programs, and social service agencies.

Continued growth is expected in community residential facilities as well as in day care programs for people with disabilities. Job prospects are expected to be best for those with clinical experience.

◆ **RESPIRATORY THERAPISTS:**

Employment is expected to grow much faster than average because of the substantial growth in the middle-aged and elderly population. An older population is more likely to suffer from diseases such

emphysema, and heart disease. Rapid growth in the number of patients with AIDS also will boost demand since lung disease often accompanies AIDS. And because more premature infants now survive, job opportunities are expected to be highly favorable for those with neonatal care skills. A Minnesota home health care association

- ◆ **SURGICAL TECHS:** Much faster than average growth is expected as a growing population & technological advances increase the number of surgical procedures performed. Growth will be fastest in clinics and offices of physicians due to increased out-patient surgery; however, most jobs will be in hospitals.
- ◆ **RESPIRATORY THERAPISTS IN HOME HEALTH CARE:** The job outlook right now for respiratory therapists in home health care is quite good. Two technical & community colleges list respiratory care practitioner as a field most likely to lead to related jobs, & four said it is a field most likely to lead to jobs which pay relatively well.

MORE ABOUT COMPUTER PROFESSIONS

"We are finding a skill gap in the workforce," says Kathy Howson, staffing operations manager for US West in Minneapolis, discussing the current mismatch between computer skills that job-seekers possess and computer skills that employers need. "I have jobs open right now that are high paying. I just can't find the right people."

Office Careers

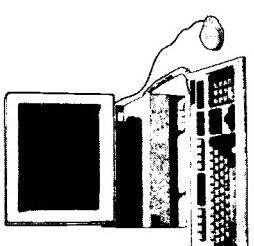
Technical

tion of skills. So they are offering incentives to employees who bring in qualified people, Krueger says.

Many companies are looking outside the Twin Cities and the state, he adds. "It's a skill issue more than anything else."

So, what is the skill gap?

What skills will fill the gap? What is the latest technology?



able to communicate with users and understand their functions.

MIS management will create internal consulting groups to address critical applications needs. These teams will be staffed by systems analysts who have interviewing and negotiating skills, formal structured design skills and an understanding of the firm's business.

They will use CASE tools, including data analysis and modeling software prototyping tools and code generators to quickly create working models of new systems.

MAINFRAME
The mainframe will continue to be the workhorse of information processing for the next several years....The demand for mainframe development and maintenance programmers should remain steady until the late 1990s. Mainframe professionals, however,

should develop additional technical skills such as DB2/SQL and get some exposure to client/server technology. Strong analytical experience supporting packages such as Dun Bradstreet's accounting system will also be important.

LATEST TECHNOLOGY

Some of the latest technology, according to Source edp, is the following:

- ◆ Client/server systems;
- ◆ Local area networks (LANs);
- ◆ Relational databases;
- ◆ Distributed applications;
- ◆ Multi-tasking operating systems such as UNIX, OS/2, Windows NT, or VMS;
- ◆ Single-user workstations running graphical-user interfaces such as OSF/MOTIF or X-Windows under UNIX, Microsoft Windows, and Mac-OS;
- ◆ High-level languages and GUI development tools [graphical-user interfaces] such as Smalltalk, Visual BASIC and Powerbuilder;
- ◆ LAN technology such as TCP/IP, Decnet, Novell Netware, NT Server, or Banyan Vines;
- ◆ C or C++;
- ◆ Relational database;
- ◆ Database management systems like Sybase, Oracle, Ingres or Progress;

Companies are finding it difficult to match open computer positions to people with the right combina-

"Everyone is doing programming: publishing, telecommunications, software houses," according to Rick Krueger of the Minnesota Higher Technology Council. Programmers are in great demand in the Twin Cities right now, he says, and a programmer with C++ programming background "would get hired by noon here."

at least one of these standard languages, understand open system concepts and concentrate on expanding their analytical skills and industry knowledge.

SOFTWARE GROWTH CONTINUES
Software development will continue to be a lucrative yet competitive market. Software companies will invest significant resources in initial product analysis, quality assurance and end-user support. The continued growth of the software industry has created a strong demand for detail-oriented software engineers who specialize in software quality control and for technical professionals who have solid customer relations skills.

NEW TECHNOLOGIES
New technologies abound, all centered around some sort of distributed technology: new fourth generation languages, distributed databases, GUI front ends, and lots of connectivity. The demand to build distributed systems has

created a new employment group

and a corresponding shortage of professionals with those skills. Together, these two major forces have created a very healthy appetite in the computer market place for skilled, talented and motivated computer professionals and managers.

IMPACT OF OPEN SYSTEMS
Standards in operating systems, languages & software architecture are being established. These will increase the long-term viability and ROI of software development. Open operating systems such as UNIX, MS-DOS and OS/2; open networking standards like OSI and IBM's system network architecture (SNA); and standard languages like COBOL, RPG 400, C, C++, SEQUEL and SQLi will continue to become more prevalent.

Systems professionals should learn

"IF THERE'S EVER BEEN A FIELD FOR LIFELONG TRAINING, IT'S COMPUTER SCIENCE."

—Dan Wagner

MAINFRAME

The mainframe will continue to be the workhorse of information processing for the next several years....The demand for mainframe development and maintenance programmers should remain steady until the late 1990s. Mainframe professionals, however,

should develop additional technical skills such as DB2/SQL and get some exposure to client/server technology. Strong analytical experience supporting packages such as Dun Bradstreet's accounting system will also be important.

DECENTRALIZED INFORMATION PROCESSING

More and more often non-computer personnel ("end-users") are able to do their own computing, using fourth generation languages and relational databases to develop applications without the help of computer personnel. In turn, MIS [management information systems] will create the infrastructure, regulate the flow of data within the organization and provide the facilities, tools and training that empower the end-user community.

The expanded role of the end-user in computing will challenge the MIS professional to not only be technically proficient, but also be

"Everyone is doing programming: publishing, telecommunications, software houses," according to Rick Krueger of the Minnesota Higher Technology Council. Programmers are in great demand in the Twin Cities right now, he says, and a programmer with C++ programming background "would get hired by noon here."

Companies are finding it difficult to match open computer positions to people with the right combina-

TYPES OF COMPUTER WORKERS

From Source edp 1995 Salary Survey

PROGRAMMING (Commercial):

MAINFRAME COMPUTER

MIDRANGE COMPUTER

MICROCOMPUTER

SOFTWARE ENGINEERING

CLIENT/SERVER

LAN/WAN TECHNOLOGY

DATA CENTER:

BUSINESS SYSTEMS:

SPECIALISTS:

MAINFRAME: COBOL and CICS with DB2 or similar relational database highly preferred. CASE technology, data modeling, project leadership or project management.

CLIENT/SERVER: MS Windows or Unix platform with C or C++ and object-oriented programming. Back-end SQL Relational Database, Oracle, Sybase or Informix highly preferred.

LAN/WAN TECHNOLOGY: Novell Netware 3.1X, LAN administration, setup, implementation and troubleshooting. Knowledge of network protocols, servers, wide area products such as bridges, routers and hubs. CNE preferred.

MIDRANGE: There still remains a moderate demand for IBM AS/400, RPG/400 technology. Although this platform is not as hot as it was a year ago.

EDP Auditor
Senior EDP Auditor
Technical Writing
Writer

Editor
Systems Integrator

MANAGEMENT:
MIS Director/CIO
Small/Medium Shop

Large Shop
Applications Development
Technical Services

Project Manager
Project Leader

Programmer / Analyst

Senior Programmer/Analyst

SALES:

Account Representative

Pre/Post Sales Support Rep.

Management

Programmer / Analyst

Senior Programmer/Analyst

SOFTWARE ENGINEERING

Software Engineer

Senior Software Engineer

DATA CENTER:

Data Center Manager

Computer Operations Operator

Senior Operator

Operations Support Tech

Senior Technician

Communications Network Operator

Senior Operator

SPECIALISTS:

Database Management

Database Analyst

Database Administrator

LAN Administrator

End User Support

PC Support Specialist

PC Analyst

System Administrator/Mgr.

Telecommunications

Voice Analysts

Data Communications Analyst

System Programmer

EDP Auditing

Technical Writing
Editor

Systems Integrator

MANAGEMENT:
MIS Director/CIO
Small/Medium Shop

Large Shop
Applications Development
Technical Services

Project Manager
Project Leader

Programmer / Analyst

Senior Programmer/Analyst

SALES:

Account Representative

Pre/Post Sales Support Rep.

Management

Programmer / Analyst

Senior Programmer/Analyst

SOFTWARE ENGINEERING

Software Engineer

Senior Software Engineer

BUSINESS SYSTEMS:

Systems Analyst

Computer Consultant

EIS Analyst

DATA CENTER:

Data Center Manager

Computer Operations Operator

Senior Operator

Operations Support Tech

Senior Technician

Communications Network Operator

Senior Operator

SPECIALISTS:

Database Management

Database Analyst

Database Administrator

LAN Administrator

End User Support

PC Support Specialist

PC Analyst

System Administrator/Mgr.

Telecommunications

Voice Analysts

Data Communications Analyst

System Programmer

EDP Auditing



"Employed people are coming back and getting what they need," says Daniel Wagner, director of academic program review for community & technical colleges. People who graduated as recently as 10 years ago are coming back to school because the computer languages they learned are now obsolete, he says. The main reason for unemployment in this field is outdated skills, Wagner adds.

"Five or ten years ago the typical major was called computer programming," says Wagner. Now, not only are there a number of short-term certificates but also a diversity of degrees offered. The certificate programs are specific to particular computer languages or skills, depending on the needs of students or employers. These certificate programs are popular because they are quick updates in areas in demand.

The expected length of time that computer knowledge is useful for new grads is four to five years; then they will need to return to school for more education, Wagner says. By the year 2000, that length of time is expected to reduce dramatically. "If there's ever been a field for lifelong training, it's computer science."

—Some of this text was excerpted from an article by Julie Pool in *Minnesota Economic Trends*, Winter 1995.

■ MORE ON COMPUTERS—next page

MORE ABOUT CAREERS IN COMPUTERS, ACCOUNTING, MEDIA

COMPUTERS—SEE ALSO PP. 20, 52-53, & 68-75 ACCOUNTING—SEE ALSO PP. 12, 18 MEDIA—SEE ALSO P. 24

Career Focus believes that 4-year

training in computers has become a much more sure entry into the field, basing our opinion on reports from placement offices at both 4-year and 2-year schools.

Stronger competition faces grads from 2-year computer training; it may be wise to use some caution when considering two-year programs. On the other hand, a data processing association says:

"Two-year grads are still finding decent jobs, although probably at lower wages [than those with bachelor degrees]. Over time, job entry requirements will shift slowly to a 4-year degree, not quickly however."

COMPUTER ENGINEERS

On the list of fastest-growing fields in Minnesota, computer engineer ranks #2, with a 67% increase from 1993 to 2001.

On the list of occupations with the greatest number of predicted new jobs in Minnesota, 1993 to 2001, computer engineer ranks #9.

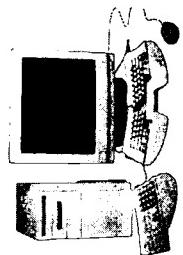
MORE ON COMPUTER WORK

Nationally, *U. S. News & World Report* magazine (Oct. 1994), named systems analyst, computer scientist, computer engineer, operations research analyst, and programmer as "Hot Job Tracks" in computing. Best job chances for programming and systems analysis are at data processing services companies, software companies, & computer consultants. Insurance companies also have demand, as do banks & other financial institutions.

COMPUTER PROGRAMMERS

Nationally, the number of jobs for programmers is expected to grow faster than average as organizations seek new applications for computers and improvement to the software already in use. Employment is not expected to grow as rapidly as in the past, however, because new software and techniques have simplified or eliminated some programming tasks.

A data processing association says in regard to software, "Powerbuilder is hot, as will be Smalltalk in the next year or so, and possibly Visual Basic. But new products show up so fast we will not see anything like the longevity of COBOL, although C++ is a standard language."



Office
Careers

Technical
Crafts

Service
Careers

Prevision
Crafts

MEDIA

(the top-rated major). Ten 4-year colleges list as a field most likely to lead to jobs which pay relatively well (tied with engineering as top-rated major).

BUT...

Five technical & community colleges list accountant as a field least likely to lead to related jobs, and five list it as a field least likely to lead to jobs which pay relatively well.

Furthermore, several of these

two-year colleges add comments such as:

○ A lot of jobs but very competitive; every type of postsecondary school teaches it.

○ There are too many accounting grads from tech & community colleges & from state universities.

○ Hard job market, lots of 2-year & 4-year grads looking at same jobs.

A job placement firm says, "For

those with under 10 years experience in accounting, prospects are good, if they have a good accounting background and healthy skills. In the long term a person's career will be enhanced with a 4-yr. acctg. degree. Those with a 2-yr. degree can peak out early in their career."

A CPA association states that the "best thing an accounting student could do is to **ignore** the right brain stuff in college: many, many come out well-trained in accounting, the left brain, but lacking in communication skills: writing and

people skills. Students would do themselves a service by focusing more on those, in addition to accounting.

◆ COSMETOLOGISTS

The cosmetology field has a reputation for being easy to enter, requiring completion of only about a year of training. On the negative side, however, it also has a reputation for attracting a large number

BROADCAST TECHNICIANS

Cautions exist for the following media careers:

television production tech

audio visual technician

mass media technician

media communications tech

audio records specialist

multimedia specialist

professional photographer.



PERSONAL SERVICE

FOOD SERVICE

PROTECTIVE SERVICE

◆ COSMETOLOGISTS

The cosmetology field has a reputation for being easy to enter, requiring completion of only about a year of training. On the negative side, however, it also has a reputation for attracting a large number

"Expertise in tax accounting is good, cost accounting is good."

MORE ABOUT COSMETOLOGY, COOKING, CORRECTIONS, MACHINING

COSMETOLOGY—SEE ALSO P. 26 COOKING—SEE ALSO PP. 26, 44 CORRECTIONS—SEE ALSO P. 26 MACHINING—SEE ALSO P. 30

of trainees, and many, if they complete the training, receive fairly low wages to start, and many drop out after a short time in the field. Two technical & community colleges list cosmetology as a field MOST likely to lead to related jobs, but three schools list it as a field LEAST likely to lead to jobs which pay relatively well.

In spite of the negatives, there is a positive side for some people in this field. The following statements about the cosmetology field were received from an official of a cosmetologists association in July 1995:

"Present job availability is really great; there are shortages in all specialty areas. Salons have openings that they can't fill, and we expect the same a year from now. Esthetics (skin care) people and manicurists are still in demand."

"Salaries for cosmetologists are actually higher" than those generally reported. The official thought that a good person coming out of school now could expect a fair salary if you include tips. "After 3-4 yrs. if you're really good you could make [a lot more], but it depends on how good, and how hard a person wants to work."

There's lots of part-time if you want it and you can work around a family, work three days a week, [and still make a good living]. It's also an easy, fun job.

"Those who leave cosmetology are probably not people-persons; you do need people skills. For some that leave, it may be being on their feet too much, some may have trouble with the chemicals used in cosmetology."

"One opportunity that people should consider is that after licensing and experience, a cosmetologist can become an education specialist. Manufacturers will hire people to go into salons and train the staff in the use of products. Other options are sales, teaching, big platform demos at trade shows."

The association official has travelled all over the US, engaged in the above activities.

◆ BEAUTY SALON MANAGERS

It's not the first thing that comes to mind when the *managerial* field is mentioned but...the cosmetologist association official also says there's a shortage of beauty salon managers, because, by law, all beauty salons need managers. The association says there's a "great need," and that there "may be a shortage for a few years, unless the law is changed."

◆ RESTAURANT COOKS

Restaurant cook is an occupation which is growing very fast in Minnesota, as the population increases...and the trend continues to prepare fewer meals at home. Plentiful job openings, because many workers leave this field to seek other jobs.

Last year a Twin Cities school said of its food service / cook training: "No trouble getting jobs. One of best job outlooks of all programs at this school."

◆ CORRECTIONAL OFFICERS

Correctional officer/jailer is the 12th fastest-growing occupation in Minnesota. A spokesperson for a correctional officers union gave the following

ized training. So, in this time of growth, the field of *training* the new corrections workers might be particularly lucrative. Also, salaries for trainers are fairly good.

information in Sept. 1995:

All the union's corrections facilities are extremely busy—workers are "busted at the seams, pushed to the max, caught between the need to house convicted criminals vs. budgetary constraints. Public cry is to house the people—more toward punishment than anything. So there will be public dollars for this."

A new private prison was recently built in Appleton, and a new prison in St. Cloud is anticipated for the future, and "when a new facility opens, it means quite a bit of employment opportunity."

What enhances a person's chances of obtaining a job? "Clean record, good health, good vision, high school diploma, or advanced training is good. Jailer is more of an entry level position, so people with training beyond an associate degree would probably not be looking to get this kind of job. But an associate degree in law enforcement would be helpful and would increase chances of landing a corrections officer/jailer job."

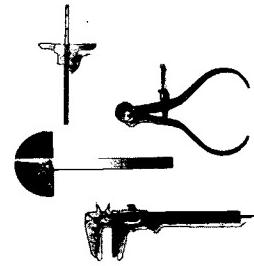
◆ TRAINERS OF CORRECTION OFFICERS

People who have experience in corrections and who are capable of training other correction officers should have very good opportunities for good jobs. Correction officers are required to have special-

from job to job; when we find them, we try to take them, and try to retrain them." In short, on all levels it's difficult to find workers. "For 4, 5 years it's been like this: our industry goes strong for seven quarters (1.75 years) and then there's a lull for several weeks. Last June, though, that lull lasted only 2 to 3 weeks.

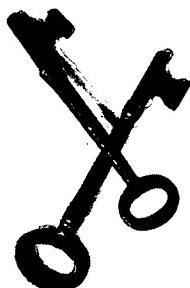
"Minnesota is [training] about 550 machinists per year and our industry can usually consume 1000/year. We are at that point right now."

The association goes on to say that one company has a high school apprenticeship program with a Twin Cities school, and they have a couple high school apprentices that split a 40-hour week. Because the company has such a high need for machinists, they plan to keep the students on as regular employees after they graduate.



O In spite of the demand, there are also warning signals for the future. In Minnesota, the machine tool trade will grow at a very slow rate of 4% until 2001, compared to the average growth rate of 12% for all occupations. Nationally the number of jobs is expected to decrease for both machinists and tool & die by 2005. This could be seen as a contradiction of the obvious high demand for machinists. However,

—continued on page 56—



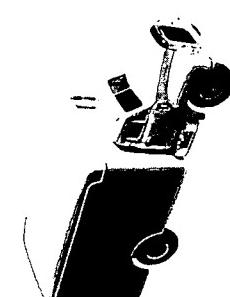
Full Text Provided by ERIC
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MORE ABOUT CAREERS IN DRIVING & SALES

And eventually you can move up from there.

"But as far as finding good solid driving jobs that pay \$15-20 an hour with full benefits, it's pretty unlikely at the moment. Last year at this time, I had employers beginning for drivers, but not now." In the long run, the union rep says, "We believe there'll be a shortage, partly because the restrictions are tougher: drug tests will preclude some people from driving jobs, and if you've had a DWI or a couple of speeding tickets in the last two or three years, then chances aren't too good."

"...Two keys are having a clean driving record and passing drug tests. ...Good drivers don't have to look for jobs—people call them. But it's stagnant right now, except for those lower-end jobs where there's always a lot of turnover."



- A union said in Feb. 1996, "Right now it's kind of slow. Oh, there's always a need for people who are willing to work for next to nothing—for example, we have a standing offer of jobs driving for a company that transports persons with physical difficulties. The jobs pay \$6 per hour to start, and go up to \$8. But they do have good benefits. Jobs like that might be okay for people that have other sources of income. There's a bunch of those companies around who are busing persons with physical problems. We think there are 1300 drivers doing this in the Twin Cities area and turnover is tremendous, so there are always jobs." And, despite the low pay, it is a way to get driving experience. "You go through the drug testing, they train you right on the job, & even though they call the job part-time, you get 50 hours a week."

■ **DRIVING** See also pp. 34-35

◆ **Truck Driving** In 1993 and 1994 the nation had been suffering from a shortage of truck drivers which was getting a lot of publicity. But by Summer 1995 the demand for truck drivers tapered off, even though some observers think it's just a temporary lull and that demand will climb back up soon. In Minnesota truck driving is still predicted to have the 6th-largest number of new jobs of all occupations from 1993 to 2001.

DRIVING

In the state of the economy [hiring is]

fairly slow. 1994 was a very strong

year for the trucking industry, but

it tapered off through 1995."

However, the association still anti-

cipates driver shortages for large

truck companies that haul goods

nationally, pointing to American

Trucking Association claims that

there will be a shortage of 300,000

drivers in the USA for each of the

next 10 years. Much of the short-

age will probably be due to the

lack of drivers who are willing to be out over-the-road for possibly two weeks at a time, with long hours. Competition is expected for jobs that offer the highest earnings or best working conditions.

"The chances for a recent graduate getting a job are excellent if you are willing to drive interstate. You must be 21, although some insurers want someone with three to four years experience, so they require a minimum age of 26 to 28."

SCHOOL BUS DRIVERS

An official for a school employee union said in March 1996 that in the Greater Minnesota area outside the Twin Cities, "We're seeing a real shortage of drivers, ever since the CDL (Commercial Driver's License) requirements took effect along with the drug check and the background check. And the wages haven't kept up with those requirements. Some districts are screaming for drivers, and most districts are short of substitute drivers. There's not an abundance of candidates for jobs....Pay in the outstate might average \$10 /hour if working for school districts," but pay is lower at subcontractors.

A spokesperson for Ryder Bus Co. in the metro area said in March 1996, "There's still opportunity for drivers, but not a shortage to the extent that it was last year. We're still looking for drivers continuously, but that's not unusual in our industry, due to significant turnover. So we're still aggressively recruiting. We're probably in a fair situation rather than good. We're coming off a terrible year last year, when the office staff was filling in driving, sometimes every day." The company pays \$8.50 to start with the possibility of bonus-

es, up to \$11/hr. Drivers can work from 1 to 3 shifts per day, guaranteed 2 hours for the morning shift, one for the noon shift, and two for the afternoon shift. Those who drive the morning and afternoon shifts often get 7 to 8 hours/day. Parents may take up to two preschool children on the bus with them, subject to approval by the company.

One large suburban school district in the Twin Cities says, "There's still a shortage—it's not as severe as before but it still exists. The biggest problem is that school bus driving is part-time." They have three contractors who handle the training of the drivers. Drivers undergo a criminal background check and drug testing, and receive their drivers license after passing several written tests and one driving test. Salary range is \$9.50 - \$11/hour.



SALES & MARKETING

See also pp. 36-39

There is an indication of a surplus of *commission sales people* in Minnesota. Some companies may need fewer commission salespeople, due in part to the use of technologies, such as voice mail, paging systems, cellular telephones, fax machines, and laptop computers, which help each worker to accomplish more. Mastering the use of these technologies may be wise.

Nationally, U. S. News & World Report magazine (Oct. 1994), named

the following as "Hot Job Tracks" in the sales field, suggesting higher demand in these specialties:

Merchandise planner/distributor

Preferred customer representative

Travel sales

Home health care sales.

BUSINESS SERVICES THAT MIGHT NEED "SALES"

For the past few years there's been much talk about the growth of businesses which provide services (contrasted with businesses which produce material goods—that is, factories & construction companies). Services sales has been touted as a field whose time has come. Confusion remains, however, over what the term *services sales* means. The following is a list of services which might need *services sales workers*, that is, people to find customers and convince them to buy the services.

○ **Health Services**

Examples: nursing homes, home health services

○ **Personnel Supply**

Example: temporary employment agencies

○ **Financial Services**

Examples: loans, charge accounts, investments

○ **Advertising**

○ **Computer Processing**

○ **Insurance**

○ **Real Estate**

○ **Travel**

○ **Recreation & Entertainment**

○ **Lodging**

○ **Transportation & Utilities**

○ **Building Maintenance**

○ **Credit Reporting**

○ **Bookkeeping**

○ **Security**

○ **Printing**

○ **Storage Space**

WILL ONE TO TWO YEARS OF EDUCATION LEAD TO A JOB?

The charts on pages 58 to 60 are based on information provided to *Career FOCUS* in August 1995 by job placement officers at twenty-three technical colleges and eight community colleges. Training programs at these schools generally last one to two years. Job placement officers at all large post-secondary schools in the state were asked to update their responses to a survey that *Career FOCUS* originally did in late 1994. They were asked to respond again to the following four statements:

1. Comparing all your program offerings, list three to five programs that you see as *most likely* to lead to *jobs related to the program*.
2. Comparing all your program offerings, list three to five programs that you see as *most likely* to lead to *jobs which pay relatively well*.
3. Comparing all your program offerings, list three to five programs that you see as *least likely* to lead to *jobs related to the program*.
4. Comparing all your program offerings, list three to five programs that you see as *least likely* to lead to *jobs which pay relatively well*.

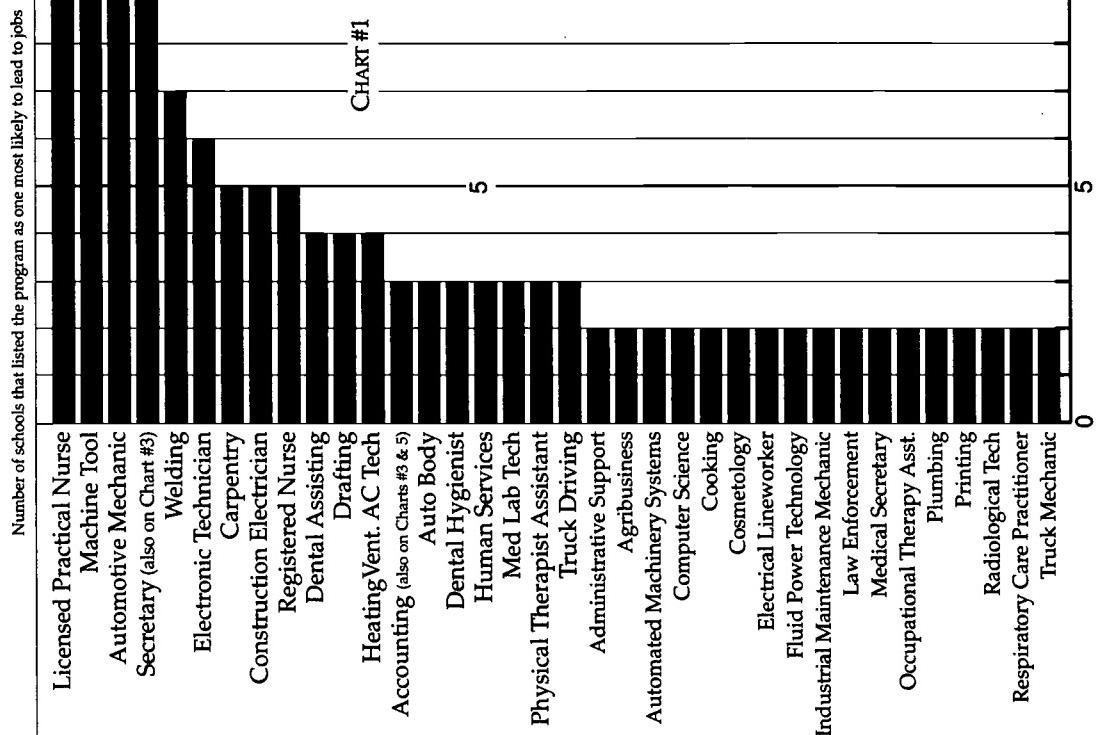
Each chart shows how many schools listed each major or program, in answer to one of the four questions above. For example, **Licensed Practical Nurse** (see Chart #1) was listed by thirteen two-year colleges as "most likely to lead to related jobs." **Machine Tool** was listed by twelve.

Some programs are listed on what appear to be opposing charts. For instance, **Secretary** is listed on both Chart #1 (*most likely to lead to jobs*) and Chart #3, P. 60, (*least likely to lead to jobs*). The explanation may be simply that the experience of different schools is different. But the secretarial field has a confusing outlook because it is an occupation going through much change—after years of growing steadily until it was one of the largest occupations, it's now almost certainly going to have fewer and fewer new jobs in the future, primarily because computers not only allow each secretary to do more work, but they also permit other workers—who in the past assigned work to secretaries—to do more of their own clerical work. Many job openings will still occur because each year a fair number of the 50,000 secretaries in Minnesota will retire or leave the field for other reasons, and they will need to be replaced.

JOB!  And **Accounting** is listed as a program "most likely to lead to jobs" both by two-year colleges and by four-year colleges (See Chart #1 on this page & Chart #5 on page 61). However, on page 60, in Chart #3, **Accounting** is identified by many schools as a two-year college program *least likely* to lead to jobs. In this case, although some two-year schools are still seeing enough jobs for their graduates, it appears that more and more often a 4-year degree is required to gain work as an accountant (*Career FOCUS* has heard that requirement from employers as well).

JOBS WHICH PAY RELATIVELY WELL  ?

TECHNICAL & COMMUNITY COLLEGE PROGRAMS MOST LIKELY TO LEAD TO RELATED JOBS

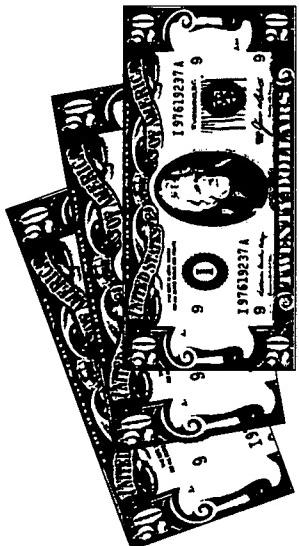


WILL ONE TO TWO YEARS OF EDUCATION LEAD TO GOOD PAY*?

*Career FOCUS estimates that "good pay" for graduates of technical & community colleges probably means starting at from \$9 to \$12 per hour just coming out of training, and earning \$12 to \$15 or more after several years experience (based on wage information for workers in these occupations).

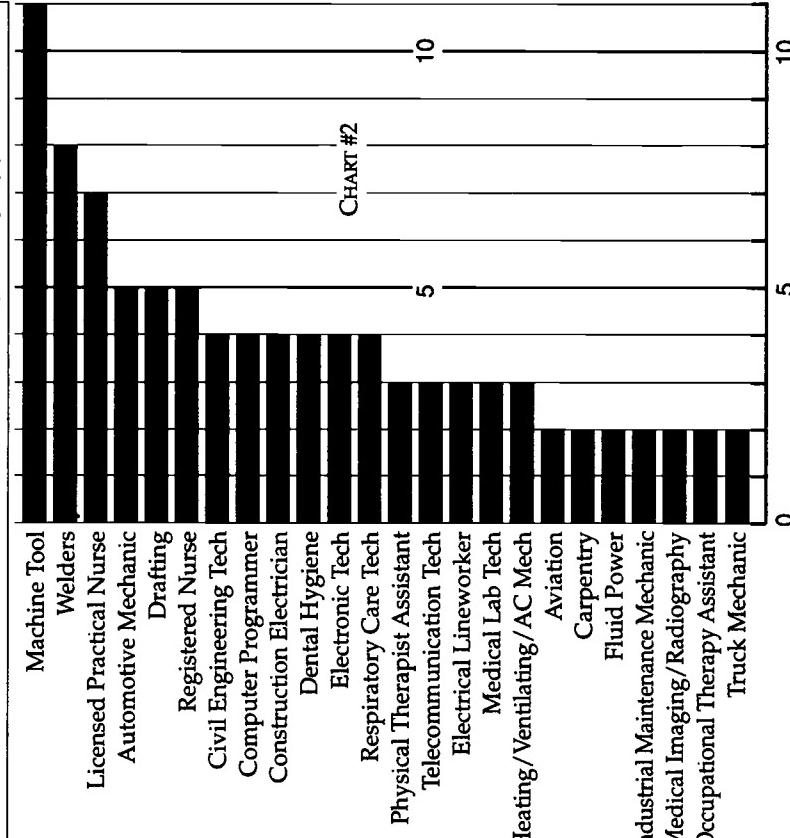
Continued from Chart #1:
Also mentioned once as most likely tech &
comm. college programs to lead to jobs:

ADN	Agricultural Lab Technology
	Agricultural Production Mgmt.
	Allied Health Programs
	Aviation
	Band Instrument Repair
	Broadcasting
	Building Inspection
	Building Mechanic
	Business Management
	Cable TV Technology
	Child Development
	Chiropractic Tech
	Civil Engineering Tech
	Credit & Finance
	Diesel Mechanic
	Electrical Systems
	Electric Motor
	Fashion Merchandising
	Floriculture
	HVAC Design (not HVAC Tech)
	Health Unit Coordinator
	Hospitality Management
	Information Processing: Accounting
	Instrumentation & Process Control
	Lab Tech & Mgmt.: Food Science
	Legal Assistant
	Machine Tech
	Metallurgy
	Metrology
	Microcomputer Specialist
	NAR
	Natural Resources: Forest Mgmt/Wildlife
	Non-Destructive Testing
	OPRV
	Office Information Processor
	Optical
	Paralegal
	Parks & Recreation: Interpretation
	Refrigeration
	Robotics Technology
	Solid Waste Management
	Travel
	Wilderness Management



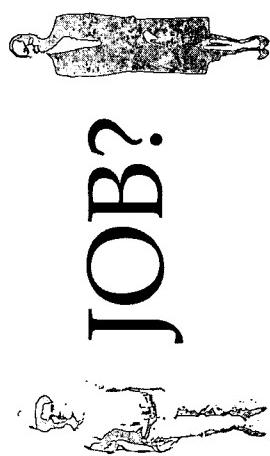
TECHNICAL & COMMUNITY COLLEGE PROGRAMS
MOST LIKELY TO LEAD TO JOBS WHICH PAY RELATIVELY WELL.

Number of schools that listed the program as one most likely to lead to good pay



SOME WORKERS MAY HAVE TROUBLE FINDING A JOB OR GOOD PAY,

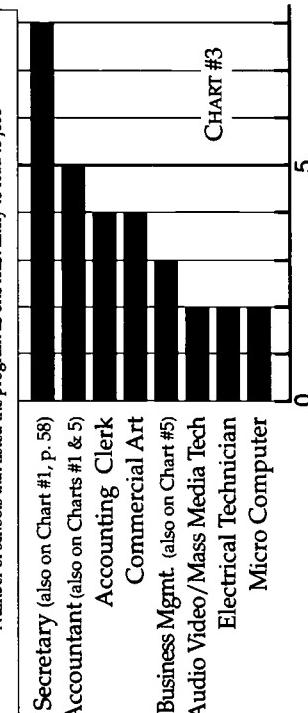
EVEN AFTER ONE TO TWO YEARS OF EDUCATION



JOB?

**TECH & COMMUNITY COLLEGE PROGRAMS
LEAST LIKELY TO LEAD TO RELATED JOBS**

Number of schools that listed the program as one least likely to lead to jobs

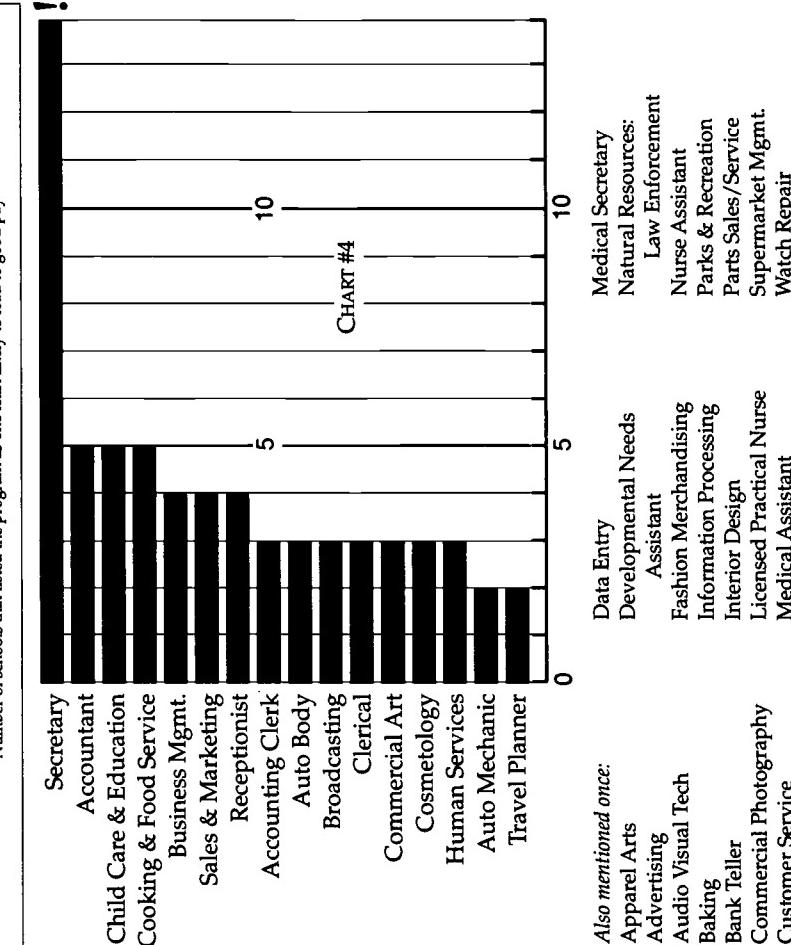


Also mentioned once as least likely to lead to jobs:

- Advertising
- Air Traffic Control
- Auto Machining
- Aviation
- Bank Teller
- Bio-Med Tech
- Clerk Typist/Office
- Commercial Baking
- Data Entry Clerk
- Construction Electrician
- Electronic Music Tech
- Financial Credit Services
- Fire Tech
- Human Services
- Law Enforcement
- Legal Assistant
- Legal Secretary
- Major Appliance Repair
- Meat Processing
- Multi-Housing
- Natural Resources: Law Enforcement Powerline
- Property Management
- Radio Broadcasting
- Sales and Marketing
- Supervisory Management
- Travel Planner
- TV Production
- Water/Wastewater

**TECH & COMMUNITY COLLEGE PROGRAMS
LEAST LIKELY TO LEAD TO JOBS WHICH PAY RELATIVELY WELL.**

Number of schools that listed the program as one least likely to lead to good pay



- Also mentioned once:*
- Apparel Arts
 - Advertising
 - Audio Visual Tech
 - Baking
 - Bank Teller
 - Commercial Photography
 - Customer Service
 - Data Entry
 - Developmental Needs
 - Assistant
 - Fashion Merchandising
 - Information Processing
 - Interior Design
 - Licensed Practical Nurse
 - Medical Assistant
 - Medical Secretary
 - Natural Resources:
 - Law Enforcement
 - Nurse Assistant
 - Parks & Recreation
 - Parts Sales/Service
 - Supermarket Mgmt.
 - Watch Repair

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WILL A FOUR-YEAR COLLEGE EDUCATION LEAD TO A JOB?

In Summer 1995 *Career FOCUS* asked the job placement officers at all large postsecondary schools in the state to update their 1994 responses to the four statements on

Each chart shows how many times each major or program was listed by schools in response to statements #1 & #3 on page 58. For example, in Chart 5 below, Accounting is listed by eleven different four-year colleges as "most likely to lead to related jobs." Computer Science was listed by ten schools.

It is somewhat confusing that some programs are listed on what appear to be

opposing charts. For example, Accountant is listed on this page in Chart #5 (4-year college majors *most likely* to lead to jobs), but in the opposing Chart #3 on page 60 (2-year college programs *least likely* to lead to jobs). In this case, the explanation is quite likely that, more and more often, a 4-year degree is required to gain work as an accountant. It gets more confusing when 4-year Math is listed on both Charts #5 & #6 on

page 58. Updates were received from 21 four-year colleges. Their responses to statements 1 & 3 are depicted in the charts below.

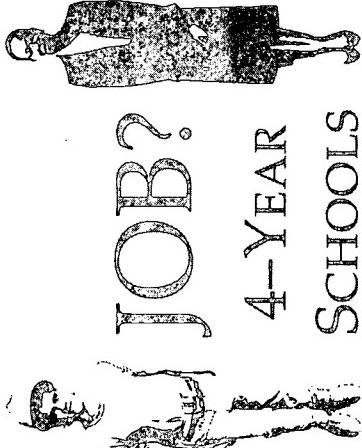
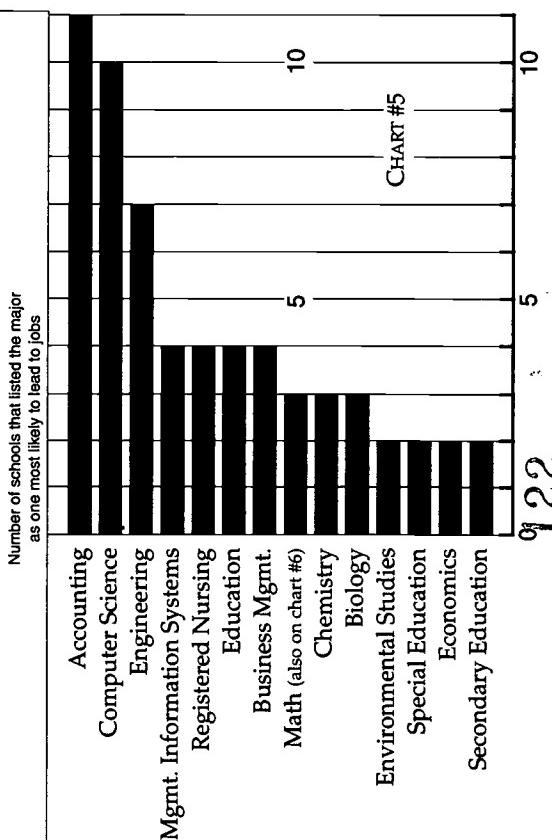
This page. Here the explanation may simply be that the experience of different schools is different. But whatever the reason, math has an ambiguous outlook, so the outlook for students majoring in math is some good, some bad. By presenting these charts, *Career FOCUS* is not claiming that one major or program is *better* than another—there are good reasons for choosing a field of

study other than for potential jobs and pay (*history*, for example, is *interesting*). But, some fields appear to be more effective than others in preparing for employment. And if one of the primary goals of your education is a job, it may be wise to look at information such as that which is presented on this page.

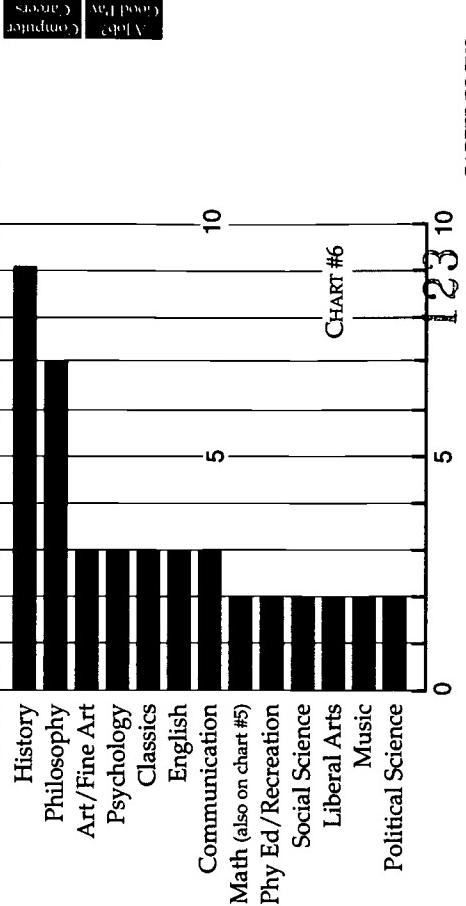
And double majors are an option—one personal major and one practical major.



**4-YEAR COLLEGE MAJORS
MOST LIKELY TO LEAD TO RELATED JOBS**



**4-YEAR COLLEGE MAJORS
LEAST LIKELY TO LEAD TO RELATED JOBS**



COMMUNITY COLLEGES

Community colleges have many two-year "career" programs which train students for specific occupations. They also provide the first two years of many four-year degree programs. Contact the school nearest you or 612-296-3990. (TDD 612-282-2660)

TWIN CITIES AREA	NORTHWEST MINNESOTA	NORTHEAST MINNESOTA
Anoka-Ramsey Community College 11200 Mississippi Boulevard NW Coon Rapids, MN 55433 612-427-2600 (5000 students)	Lakewood Community College 3401 Century Avenue White Bear Lake, MN 55110 612-779-3200 (6000 students)	Brainerd Campus of Central Lakes College 501 W. College Dr., 56401 218-828-2525 1-800-933-0346 (1300 students)
Cambridge Community College Campus of Anoka-Ramsey Community College 33270 Polk St. NE 55008 612-689-7000 (900 students)	Minneapolis Community College 1501 Hennepin Av., 55403 612-341-7000 (4500 students)	Fergus Falls Community College 1414 College Way, 56537 218-739-7500 (1200 students)
Inver Hills Community College 2500 East 80th Street Inver Grove Heights, MN 55076 612-450-8500 (5500 students)	Normandale Community College 9700 France Avenue South Brooklyn Park, MN 55445 612-832-6000 (8500 students)	Northland Community & Technical College Highway 1 East Thief River Falls, MN 56701 218-681-0701 1-800-959-6282 (1000 students)
	North Hennepin Community College 7411-85th Avenue North Brooklyn Park, MN 55445 612-493-0581 (6500 students)	Crookston University of Minnesota Now has both 2-yr & 4-yr programs Crookston, MN 56716 218-281-6510 1-800-232-6466 (1300 students)
		Itasca Community College 1515 East 25th Street, 55746 218-262-6700 1-800-224-4422 (700 students)
		Hibbing Community College 1515 East Highway 169 Grand Rapids, MN 55744 218-327-4460 1-800-996-6422 (1300 students)
		Lake Superior College - East Campus 1309 Rice Lake Road Duluth, MN 55811 218-723-4796 (700 students)
		Mesabi Community College 1001 Chestnut St. W. Virginia, MN 55752 218-749-7700 1-800-637-3860 (1300 students)
		Rainy-River Community College 1501 Hwy 71 International Falls, MN 56649 218-285-7722 1-800-456-3996 (800 students)
		Vermillion Community College 1900 E. Camp St. Ely, MN 55731 218-365-7200 1-800-657-3608 (800 students)
		Worthington Community College 1450 College Way, 56187 507-372-2107 1-800-657-3966 (800 students)

Northland	*Rainy-River
*U of M Crookston	*Vermillion
	*Mesabi
	*Hibbing
	*Itasca
	Lake Superior *
	(Fond du Lac)*
	*Brainerd
	*Fergus Falls
(Cambridge)*	
*Willmar	

*Austin
*Worthington
*Austin



BEST COPY AVAILABLE

PART I: FALL 1995 TECHNICAL COLLEGES AND

Use a ruler or a magic marker to help read this chart.
See footnotes on the right side of the next page.
X means that the course is offered at the school named
at the top of the column.

B means that both listed courses are offered.

* means the school is in the Twin Cities area.

NAME OF SCHOOL		MEDICAL		BUSINESS OFFICE		RETAIL STORES & WHOLESALE TRADE		TRAVEL & DINING	
Albion Tech	Alexandria Tech*	X	X	X	X	X	X	X	X
Anoka-Henn. Tech	Andover Tech	X	X	X	X	X	X	X	X
Austin Tech	Bemidji Tech	X	X	X	X	X	X	X	X
Briarwood Tech	Cambly Tech (SW)	X	X	X	X	X	X	X	X
Dakota County Tech*	Canyon Tech (SW)	X	X	X	X	X	X	X	X
East Grand Forks Tech	Fairbanks Tech	X	X	X	X	X	X	X	X
Duluth-Lk. Superior Tech	Faribault Tech	X	X	X	X	X	X	X	X
Detroit Lakes Tech	Eveleth Tech	X	X	X	X	X	X	X	X
East Metro Tech	Hibbing Tech	X	X	X	X	X	X	X	X
Eden Prairie*	Hutchinson Tech	X	X	X	X	X	X	X	X
Grants Falls (SW)	Jackson Tech (SW)	X	X	X	X	X	X	X	X
Henn. Brooklyn Pk*	Minneapolis Tech*	X	X	X	X	X	X	X	X
Homeless Metro Tech*	Minneapolis Tech*	X	X	X	X	X	X	X	X
Woodhead Tech	Moorhead Tech	X	X	X	X	X	X	X	X
Northstar Tech*	Northwest Tech	X	X	X	X	X	X	X	X
Pine Tech	Pipestone Tech (SW)	X	X	X	X	X	X	X	X
Rochester Tech	Red Wing Tech	X	X	X	X	X	X	X	X
St. Paul Tech*	Staples Tech	X	X	X	X	X	X	X	X
St. Cloud Tech	St. Paul Tech*	X	X	X	X	X	X	X	X
St. Paul Tech*	St. Paul Tech*	X	X	X	X	X	X	X	X
Wadeana Tech	Three River-Northland Tech	X	X	X	X	X	X	X	X
Willmar Tech	Winona Tech	X	X	X	X	X	X	X	X

(see also pp. 66-67)

COMMUNITY COLLEGES

"non-career" Programs Only. Does it include "non-career" majors. so see the map and addresses Pages 62 & 63.

means that the course is offered at the school named at the top.

means both listed courses are offered.

means the school is in the Twin Cities

NAME OF SCHOOL	Antoka-Ramsey *
Brahmherd CC	Fergus Falls CC
Hibbing CC	Minver Hills CC *
Titacaca CC	Lakewood CC *
Mesabi CC	Winnepolis CC *
North Hennepin *	Normandale CC *
North Hennepin CC *	North Hennepin *
Northland CC	Rainy River CC
Rochester CC	Vermillion CC
William CC	Worthington CC
U of M, Crookston	Duluth (d), Fond du Lac (e),
CC Centres: Chamberlain CC,	CC Centres: Campbridge CC,

<p>X means that the course is offered at the school named at the top.</p> <p>B means that Both programs are offered.</p>	<p>Health Technologies</p> <p>1a EEG Technician 1b Pharmacy Tech Emergency Med Tech Paramedicine</p>
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2e Franchise Restaurant	Interior Design Sales
2f Property Mgmt	4a Optical Technician
Supervisory Mgmt	Drafting
2g Production/inventory	4b Architectural Drafting
Postal service mgmt	4c Computer Drafting&Mfg
2h Arena & Recreation	Drafting&Design Tech
Management	Civil-Cambr, Duluth
Supervisory Mgmt	Graphic Drafting-Dul
2i Freight Trans Mgmt	4n Mechancl Drafting
2j Financial Ctr Mgmt	ComputerizedMapping
HealthCare Ctr Mgmt	5a Autocad

Administrative	Special Marketing
Hospital supply tech (Central services)	6a World Trade Tech 6b Telemarketing Mgmt
1c Nurse Assistant	6c Customer Serv.Tech 6d Vehicle service advisor
Home Health Aide	PhotographySalesServ Electronics sales
1d "911" Communicator	6e Business service mktg World trade tech
1e Pharmacy Tech &	6f Business service mktg 6g Call Center Sales Spec.
Dental Hygienist	6h Business service mktg Call Center Sales Spec.
Dental Lab Tech &	6i Casino Technician 6k Electronic sales
Orthotics / Prosthetic & Intensive Paramedic	6y Aviation & Air Traffic Control & Aircraft Dispatcher (also at CambridgeCC)
1f NeuroDiagnosticTech	6z Aircraft Dispatcher
DiagnosticSonography	6a See footnote #7b, p. 67
1g Histology Tech	6b See footnote #8i, p. 67
1h Orthotics, Prosthetics, Paramedic, Pharmacy, Dental Hygiene	6c See footnote #9b, p. 67
1i Dental Hygiene	
1j Paramedic	
1k NonInvasiveCardiology	
1m Veterinary Tech & Medical Coding Spec.	
1n Equine Science	
Horse Care	
1p Central Services Tech, Med. Transcriptionist, Medical Coding Spec.	
1q NeuroDiagnsTech-Cam Diagn.Sonography-Cam	OtherOffice Careers
Med Secrry-Dul.Cam	3a Postal Service 911&Emerg.Operator
Med records-Cambr	3b Personnel Assistant
Dental Hygiene-Duluth	3c General Secretary & Desktop Publishing Sec.
1r Clinical Neurophysical	3d NetworkCommunicatin
Dental Hygiene	3e Appraiser
Paramedic Tech	3f Bank Teller
1s Medical Coding Spec.	3g Reception/Offce Asst.
1t Veterinary Office Mgt.	3h Micro&Mini computer
Habitatative Aide	Programmr /operator Network Admin/Engr
1u Medical Admin Secrry	3i ComputNetwrk/Admin
1v HealthCareMid-Mgmt	3j Legal Admins. Secrry
1w Dietary Manager	3k InsuranceService Assoc
	3l Office Information Tech Special Retail Mgmt
	3w Bothhorticult.&Landscp. plus Floral Design & GreenHouseProduction
	Management Careers
2a Office Systems&Mgmt	3n Office Information Tech Special Retail Mgmt
Hotel/Restaur Mgmt	3o Supermarket Mgmt.
Supervisory Mgmt	3y Retail Floral / Florist
Computer networking	3z Visual Merchandise
2b Aviation Administr.	OfficeSystemsMgmt.
2c Golf Facilities Mgmt.	2d Supervisory Mgmt.
	2e Fond du LacCC Center
	CommunityCollegeCenters
	c CambridgeCC Center
	d DuluthCommColCenter
	f Fond du LacCC Center

1996 Minnesota CAREER FOCUS

FOOTNOTES

- Interior Design Sales
- 4a Optical Technician
- Drafting**
- 4b Architectural Drafting
- 4c Computer Drafting&Mfg
- 4d Drafting&Design Tech
- 4j Civil-Cambr, Duluth
- Graphic Drafting-Duluth
- 4n Mechanical Drafting
- 4o Computerized Mappin
- 5a Antisocial

Special Marketing	
6a World Trade Tech	
6b Telemarketing Mgmt	
6c Customer Serv.Tech	
6d Vehicle service advisor	
Electronics sales	
Photography/Sales/Ser	
6e Business service mktg/tch	
World trade tech	
6f Business service mktg/tch	
6g Call Center Sales Spec	
6h Business service mktg/tch	
Call Center Sales Spec	
6i Casino Technician	
6k Electronic sales	
Aviation	
6y Aviation &	
Air Traffic Control &	
Aircraft Dispatcher	
(also at CambridgeCC)	
6z Aircraft Dispatcher	
7b See footnote #7b, p. 61	
8i See footnote #8i, p. 67	
9b See footnote #9b, p. 61	
B Both courses offered.	
C Architectural Drafting	
I Electrical Drafting	
I Aviation	
K Travel Planner	
M Mechanical Drafting	
P Legal asst. or Paralegal	
R Medical Records	
S Medical Secretary	
U Legal secretary	
W Marketing	
Y Advertising	
Z Business Mgmt, plus	
Small Business	
Development Center	
2 Small Business	
Development Center	
(No Degree awarded)	
CommunityCollegeCenters	
c CambridgeCC Center	
d DuluthCommColCent	
f Fond du LacCC Center	

1996 Minnesota CAREER FO

PART II: FALL 1995 TECHNICAL COLLEGES &

Use a ruler or a magic marker to help read this chart.

X means that the course is offered at the school named at the top of the column.

B means that both listed courses are offered.

* means the school is in the Twin Cities area.

ATTRACT ATTENTION WITH SHORT-TERM TRAINING

Want to attract an employer's attention?

Update your skills with coursework.

Unfortunately, if you're out of work, that's easy to say, not so easy to do. You probably don't have the luxury to spend months or years in full-time training. An alternative is to obtain short-term or part-time training which may enhance your attractiveness to possible employers. Short-term training will probably not, in and of itself, result in a new career, but it's a way to add skills that are in demand to your resume'. A multitude of short training programs are available, many of them dealing with the

use of personal computers.

On this page and the following pages, *Focus* has listed the following types of short-term training:

SHORT-TERM PERSONAL COMPUTER (PC) TRAINING
SHORT-TERM TRAINING FOR COMPUTER PROFESSIONALS
OTHER SHORT-TERM TRAINING (NON-COMPUTER)

CUSTOMIZED TRAINING

COMMUNITY EDUCATION

FOUR-YEAR COLLEGES WITH SHORT-TERM TRAINING

Note: Inclusion on this list is not an endorsement of any particular training program — if we discovered that a program existed we included it. And, con-

versely, exclusion from this list does not imply any judgement on our part. Our intention was to start a listing of short-term training possibilities, in response to a request from dislocated worker counselors to do so. We hope it's useful.

The creators of this list do not pretend that it is comprehensive and, due to staff limitations, know that it may include some inaccuracies. We'd appreciate if readers will contact us to tell us of any inaccuracies or additions.

Our thanks to Louis Huether and the Employment Action Center for the basis of this list and much of its content.

SHORT-TERM PERSONAL COMPUTER (PC) TRAINING

COMPUTER-AIDED DESIGN

(Examples: AutoCad, Pro/Engineer)

Advantage: User

Ameridata

Benchmark

Catapult Software

Copeland Buhl and Co.

ExecuTrain

Firstaff

Firstaff

Firstaff

Incomp

Institute for Adv. Technology

Key Educational Services

Micro Knowledge

OPM

Productivity Point Internat.

St. Thomas Mgmt Center

Mpls. 962-4600, 1-800-328-8819 ext 24600

Dunwoody Institute

Hennepin TC - Brooklyn Pk.

Hennepin TC - Eden Prairie

Minneapolis Rehab Center

Northland—Thief River Falls

Northwest Technical Institute

Northwestern College

Parametric Technology Inc.

Pine Tech College, Pine City

Rand Technology

Red Wing Technical College

St. Paul Technical College

Tech Central

Anoka 427-8359

Central LakesCollege-Staples 218-894-3726 1-800-247-6836

Dakota County Tech College 423-8470

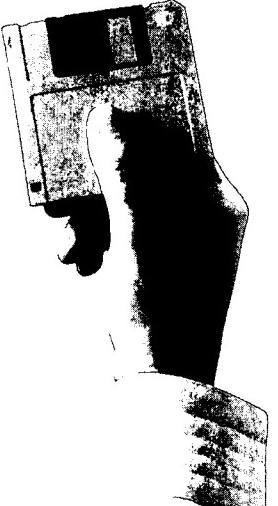
Data Source 844-1400

Digital Resources 885-0116

Short Training
Davis Thomas Assoc.

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COMPUTER DATABASE MANAGER

(Examples: dBASE 3+ or 4, Access, Paradox, FoxPro)

Advantage: User

Albert Lea PIC Office

Albert Lea Technical College

AlternativeTrainingSolutions

Alto Consulting and Training

Ameridata

American Indian OIC School

Anoka-HennepinTechCollege

Anoka-Ramsey CC

ApplicationDevelopersTraining

Augsburg Weekend College

Bridge Data

Catapult Software

Central LakesColl.-Brain.Tech

Computer City Supercenter

Computer Learning Center

Computer Skills Inst.

Computer Training Internati.

Edina

Edina 920-2657

Edina 218-828-5344 1-800-247-2574

Edina 896-6484

New Brighton 639-6227

St. Paul 644-7880

Minneapolis 933-3336

Minnetonka 933-1743

Minneapolis 933-3336

Minnetonka 920-2657

Edina

Edina 1-800-345-4655

Edina 1-800-345-4655

Edina 1-800-959-6282

Edina 1-800-944-1363

Edina 378-0665

Edina 641-0744

Edina 218-722-5051

Duluth 947-43820

Eden Prairie 423-8254

Rosemount 844-1437

Edina 591-6122

Minneapolis

PERSONAL COMPUTER SKILLS

COMPUTER DATABASE MANAGER continued—

Op Computer Trainers	721-4134	Mpls. St. Paul
Brown Center	624-2713	St. Paul
Electronic Easel	659-2444	Bloomington Plymouth
ExecuTrain	921-8844	Bloomington Mpls.
ExpertEase Software Training	551-9778	St. Paul
Firstaff	893-7555	Richfield
Firstaff	371-8245	Lexington
Firstaff	223-5528	1-800-345-4655
Hagen Micro Age	866-3441	Mpls.
Heglund's PC Services	780-4027	InverGroveHts
Hennepin TC - Eden Prairie	944-2222	Golden Valley
Honeywell Adult Education	951-0004	St. Louis Park
Henn.Tech (Customized Tr.)	944-2222 X3513	Eden Prairie Eisenhower CC
Hopkins Community Ed	988-4072	St. Paul
HRD Resource Group	690-5458	928-6723
Hutchinson Tech College	320-587-3636	1-800-222-4424
Inacomp	828-6723	Eden Prairie Edina
Institute for Adv. Technology	831-9257	InerGroveHts
Inver Hills Comm. College	450-8500	Golden Valley
Key Educational Services	545-8319	St. Louis Park
KRS Computer	938-8823	White Bear Lk.
Lakewood Comm. College	779-3200	1-800-722-9359
Mankato Technical College	507-389-7200	375-0240
Manpower Training Dept.	375-0240	Mpls.
Marco Business Products	612-259-3000	St. Cloud
Metro II	686-6800	Mendota Hgts
Metro State Univ.Mpls/StPaul	772-7611 or	341-7234
Micro Knowledge	560-9733	BrookPk-Mtnka
Minneapolis Tech College	370-9400	Mpls.
Nordberg Consulting	937-0426	Eden Prairie
Normandale Comm. College	832-6320	Bloomington Brooklyn Park
NorthHennCC Mgmt Institut	424-0880	Brooklyn Park White Bear Lk
North Henn. Comm. College	424-0702	White Bear Lk
Northeast Metro TechCollege	779-5828	1-800-959-6282
Northland—Thief River Falls	218-681-0793	Bloomington Eden Prairie
Office Information Systems	884-9199	Minneapolis
OPM	946-1100	Edina
PC Support center	334-3242	Bloomington
Premier	831-2960	1-800-657-4849
Productivity Point Internat.	884-0710	Roseville
Red Wing Technical College	338-8271	St. Paul
Resolution	628-9844	St. Paul
St Catherine's Weekend Coll.	690-6542	St. Paul
St. Paul Technical College	228-4306	St. Paul
Science Museum	221-4722	Apple Valley
Small Business Assistants	891-3234	St. Paul
Teamsters Service Bureau	221-1365	St. Paul
Technology Learning Center	297-5549	St. Paul
UMD Cont Ed & Extension	218-726-8113	Duluth

If you're a job-seeker looking for office work at any level—manager, professional, clerical—then it is nearly essential to make sure that your skills on personal computers (PC's) are current, if you are to be competitive in the job market.

You do not need to learn to be a computer programmer.

You do not need to be a computer whiz.

But it's likely that you *do* need to:

◆ be able to navigate yourself through an office computer system (Windows 95 and future versions of Windows, like it or not, will probably be the standard systems for several years).

◆ be somewhat proficient at typing—lack of this skill will limit your speed and effectiveness and your capacity for further computer use. The inability to type will also frustrate you in your efforts to update your computer skills.

◆ be proficient in at least one but preferably three or four computer applications, such as word processing, databases, spreadsheets, networks, and desktop publishing.

◆ understand the functions & value of word processing, databases, spreadsheets, networks, etc.

Many office workers who are seeking new employment can improve their appeal to new employers by picking up computer skills, whether the skills be word processing (computerized typing) or spreadsheets (numerical calculations) or databases (data storage & retrieval systems). In fact, much of the short-term training available involves computers, ranging from the above to network management and programming languages.

Almost all public technical and community colleges offer computer classes of varying levels and breadth. Contact the schools for class offerings—phone numbers and addresses, pp.62-63.

UNIVERSITY OF MINNESOTA 625-3333
—Continuing Education & Extension

ST. CLOUD STATE UNIVERSITY 690-6542
—Continuing Education 320-255-3081

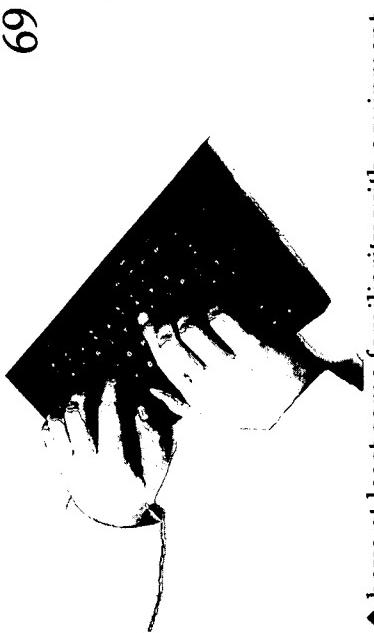
BETHEL COLLEGE 635-8000
—PACE Program for Adult College Education

NORTHWESTERN COLLEGE 218-75-2738
—Distance Education Program 631-5494

BEMIDJI STATE UNIVERSITY External Studies 1-800-475-2001, ext. 2738
—Continuing Education 631-5494

MPLS. COLLEGE OF ART AND DESIGN 1-800-842-0030
—Continuing Education 874-3760

1996 Minnesota CAREER FOCUS



STILL MORE PC TRAINING



SPREADSHEET (Examples: MS Excel, Lotus)

Advantage: User 561-3393 Brooklyn Park

Alternative Training Solutions 434-8311 Andover

Alto Consulting and Training 942-9101 Mpls.

American Indian OIC School 341-3358 Mpls.

American Institute of Banking 338-7851 Mpls.

Ameridata 290-4300 St. Paul

Bridge Data 933-3336 Minnetonka

Catapult Software 920-2657 Edina

Computer C.A.T. 871-4306 Mpls.

Computer City Supercenter 896-6484 Edina

Computer Learning Center 639-6227 New Brighton

Computer Training Internat'l. 378-0665 Mpls.

Connect Education Services 947-43820 Eden Prairie

Data Source 844-1437 Edina

Edina Comm. Education 220-4644 Edina

ExpertEase Software Training 551-9778 Plymouth

Hagen Micro Age 866-3441 Richfield

Heglund's PC Services 780-4027 Lexington

Inacomp 828-6723 Eisenhower CC

Manpower Training Dept. 375-0240 Eden Prairie

Metro II 686-6800 Mendota Hgts

Minneapolis Tech College 370-9400 Mpls.

Northland—Thief River Falls 218-681-0793 1-800-959-6282

Nordberg Consulting 937-0426 Eden Prairie

Resolution 628-9844 Roseville

Small Business Assistants 891-3234 Apple Valley

St. Louis Park Community Ed 928-6419 St. Louis Park

Worthington Comm. College 507-657-3966 1-800-657-3966

SHORT-TERM TRAINING FOR COMPUTER PROFESSIONALS

COMPUTER NETWORK MANAGEMENT

Ameridata 290-4300 St. Paul

Anoka-Hennepin TechCollege 427-8359 Anoka

Anoka-Ramsey CC 422-3303 Coon Rapids

Augsburg Weekend College 330-1743 Minneapolis

Benchmark Computer 896-6800 Edina

Bridge Data 933-3336 Minnetonka

Brown Institute, NEC 721-2481 Rosemount

Brown Institute, NEC 851-0066 Bloomington

CDI Computer Academy 378-0665

Computer Training Internat'l. 378-0665

Dakota County Tech College 423-8254 Rosemount

DakotaCity TIC Custom Train. 423-8470 Rosemount

Davis, Thomas & Assoc 591-6122 Minneapolis

Euler Training Center 525-8915 Minneapolis

ExecutiveTrain 921-8844 Bloomington

Edina 944-2222 1-800-345-4655

Hennepin TC - Eden Prairie 944-2222

Honeywell Adult Education 951-0004

Int'l Ctr for Tech Bus. & Law 379-3922

Inertech 459-6682 Newport

InterSystemsCommunityColl. 341-7004

Minneapolis Rehab Center 879-5435

North Henn. Comm. College 424-0702

Northeast Metro TechCollege 779-5828

Oak Systems 542-8910 Minneapolis

Office Information Systems 884-9199

PC Supply Center 334-3242 Brooklyn Park

White Bear Lk. 844-0710 Bloomington

ProfessionalProgramDeveloprs 894-5017

Red Wing Tech 338-8271 1-800-657-4849

Science Museum 221-4722 St. Paul

St. Paul Technical College 228-4306 St. Paul

Synergistic Systems 339-6348 Mpls.

UMD Cont Ed & Extension 218-726-8113 Duluth

U. of St Thomas OOD Lab 962-5515 St. Paul

Worthington Software 525-5901 Mpls.

COMPUTER WORD PROCESSING (Exmpls: Word, WordPerfect)

Advantage: User 561-3393 Brooklyn Park

Alternative Training Solutions 434-8311 Andover

Alto Consulting and Training 942-9101 Mpls.

American Indian OIC School 341-3358 Mpls.

American Institute of Banking 338-7851 St. Paul

Ameridata 290-4300 1-800-247-5039

Austin Technical College 507-433-0600 Eden Prairie

Bridge Data 933-3336 Minnetonka

CMEF Services 872-1740 New Brighton

Catapult Software 920-2657 Edina

Computer C.A.T. 871-4306 Mpls.

Computer City Supercenter 896-6484 Edina

Computer Learning Center 639-6227 Mpls.

Computer Training Internat'l. 378-0665 Eden Prairie

Data Source 844-1437 Edina

Edina Comm. Education 220-4644

ExpertEase Software Training 551-9778 St. Thomas Mgmt Center Mpls. 962-4600, 1-800-328-5819 ext 2460

COMPUTER PROGRAMMING LANGUAGES

(Examples: COBOL, C, C++, Visual BASIC)

Academy Education Center 851-0066 Bloomington

Alto Consulting and Training 942-9101 Mpls.

ApplicationDevelopersTrnng 943-1363 Mpls.

Augsburg Weekend College 330-1743 Minneapolis

Benchmark 896-6800 Edina

Bridge Data 933-3336 Minnetonka

Brown Institute, NEC 721-2481 Mpls.

CDI Computer Academy 851-0066 Bloomington

Computer Training Internat'l. 378-0665

Dakota County Tech College 423-8254 Rosemount

DakotaCity TIC Custom Train. 423-8470 Rosemount

Davis, Thomas & Assoc 591-6122 Minneapolis

Euler Training Center 525-8915 Minneapolis

ExecutiveTrain 921-8844 Bloomington

Edina 944-2222 1-800-345-4655

Hennepin TC - Eden Prairie 944-2222

Honeywell Adult Education 951-0004

Int'l Ctr for Tech Bus. & Law 379-3922

InterTech 459-6682 Newport

Mpls.

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Oak Systems 542-8910 Minneapolis

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Science Museum 221-4722 St. Paul

St. Paul Technical College 228-4306 St. Paul

Synergistic Systems 339-6348 Mpls.

UMD Cont Ed & Extension 218-726-8113 Duluth

U. of St Thomas OOD Lab 962-5515 St. Paul

Worthington Software 525-5901 Mpls.

CUSTOMIZED TRAINING: SHORT, QUICK, TIMELY, CONVENIENT, PRECISE, RELEVANT, COST-EFFECTIVE

A woman in her mid-forties, call her Sharon, who had worked for years as an assembler

at a Twin Cities area computer manufacturer, sensed a year ago that she probably would be facing a layoff in the coming months.

She feared she'd need a new career. So on

her own she enrolled in a two-year training program in office computers at a reliable local school, committing a considerable amount of her own money and time. But

after only two weeks in the program, she was disappointed that she wasn't getting the personal attention that she thought she needed as a middle-aged person in career training for the first time. And she was frustrated because she couldn't keep up with others in the class who knew how to type better. As a result, one day she walked out and never went back, even though it meant losing a fair amount of the money.

Eventually, in the ensuing months, the layoff she feared actually happened. Luckily, toward the end of 1995, Sharon entered a "dislocated worker" program whose aim was to assist her in becoming re-employed.

IT'S THE WAVE OF THE FUTURE.
IT'S PART OF "LIFE-LONG LEARNING."

They put her in touch with Marcia Bay, Customized Training Consultant at St. Paul Technical College's customized training office, where she received a personal assessment of her situation—testing and advice—and eventually was helped to enroll in a special personal computer (PC) course.

The course had been developed for others in a situation similar to hers: a group of people who had worked in the "same old job" for years—in assembly, warehousing, or shipping and receiving—whose average age was 52, and who knew that one good way to compete in the modern job market was to pick up personal computer skills. The trainees had been tested and assessed to assure that computer training was within their abilities and interests—such assessment

is critical to training success, says Ms. Bay.

However, Ms. Bay discovered that, although many of the people had some experience with computers on the job, that experience was usually limited to touching one key as a command to enter a program and then performing the necessary work by poking the keys with one index finger; or, if more advanced, with two. Ms. Bay knew that without computer keyboard skills, the trainees use of the computer would be very limited; so she planned an 18-hour keyboard class (3 hours per day for six sessions) with 12 trainees per class and taught by specially-chosen instructors who focused on the individual speeds and abilities of the trainees.

From that class the trainees went on to a nine-hour Windows 95 class and then on to specific office uses of computers—word processing, spreadsheets, accounting, etc. Sharon entered the keyboard course three months ago. It turned out quite different from the previous training experience that she had walked out of in frustration. She found that the specially-planned 3 to 4 hours per day really held her attention and that she got the guidance she needed from the instructor to successfully complete the program. Eventually, she gained familiarity with the keyboard, with Windows 95, and finally with Wordperfect, Access, and two other computer applications.

When Ms. Bay ran into her recently, Sharon was excited. She'd just been hired on a full-time job after only three months of the training. She exclaimed to Ms. Bay, "You totally evaluated my skills. The instructor was sensitive to my needs. And the training was just right for me."

Such is the story of customized training, a career-training concept coming into its own in the last few years. Basically customized training consists of tailor-made training programs based on what specific skills are needed *right now* by workers and by employers. It's the wave of the future.

It's part of "life-long learning."

And it's meant to keep you employable, with a present employer or a future one.

Customized training such as the example above is usually aimed at conveying specific skills to specific groups of workers in a short amount of time and in a timely way.

For example:

◆ Teaching CNC machining (computer numerical control) to six metal shop workers about to be laid off from a defense contractor because of cutbacks in military spending.

◆ Teaching a new personal computer database package, Visual FoxPro, to forty underwriters and claims examiners at a life insurance company which has recently introduced the software in their home office.

◆ Assessing the training needs of a printing company that has ordered a flexographic printing machine which is individually geared to handle some unique type of work that the company does, that is, printing on plastic wrappers for loaves of bread. Customized training for the company's workers on that machine is set up within three weeks at the company's plant.

Workplace skills are changing with greater rapidity and workers need retraining.

◆ The emergence of the personal computer and the constant introduction of new software demand new skills from large groups of workers and job-seekers.

◆ Corporate layoffs have stranded large numbers of workers without the up-to-date skills they need to compete effectively in the marketplace, & long-term training programs are often not practical.

◆ Employers are demanding considerable amounts of retraining of their employees.

◆ Employers and trainees are expecting more flexible and more just-in-time training, as opposed to traditional coursework which is offered at set times and set places.

The lessons of this type of training are that:

If employed, seriously consider taking advantage of training that an employer offers.

If unemployed, seriously consider taking advantage of skill training that an *employment program* offers.

And...customized training many times will be set up within a limited time frame for a small group of employees of a company. But if the group is too small the course may not be cost-effective, unless additional trainees are recruited. Therefore, opportunities may exist for outsiders to conveniently pick up a job skill that's in demand.

Remember, it's short, quick, timely, precise, convenient, relevant, and cost-effective.

14 **G**



MANY STATE TECHNICAL COLLEGES,
COMMUNITY COLLEGES, AND
UNIVERSITIES HAVE INTRODUCED
CUSTOMIZED TRAINING PROGRAMS.

CALL THEM & ASK. (Phone nos.: PP. 75, 62-63, 69)

Many state technical colleges and community colleges have introduced customized training programs in the recent past. In addition to their traditional one-year and two-year programs, they have found a great need for shorter, specific training. To find out if a school near you has customized training, call and ask. According to Craig Anderson, Vice President of Customized Training at the St. Paul Technical College, a much larger percentage of technical college and community college activity will be spent in customized training. This increase in activity is probably due to several reasons.

Full Text Provided by ERIC

1996 Minnesota CAREER FOCUS

EXAMPLES OF CUSTOMIZED TRAINING AVAILABLE

TYPE	PLACE	PHONE	TYPE	PLACE	PHONE
Accounting	St. Paul Tech	221-1365	Law Enforcement	Dakota Tech, Rosemnt.	423-8369
Accounting	St. ThomasMgmtCentr	962-4600	Management, Career Skills	Pine Tech, Pine City	612-629-6764
Mpls.	Austin CC	507-433-0532	Management, Career Skills	Brainerd Tech	218-828-5365
Better Business Writing	Hutchinson Tech	320-587-3636	Management, Career Skills	Staples Tech	218-894-3726
Boilers	Detroit Lakes Tech	218-847-1341	Mgmt, Career Skills-Mpls.	St. ThomasMgmtCentr	962-4600
Boilers	Eveleth Tech	218-744-3302	Marketing	Brainerd Tech	218-828-5365
Boilers	Detroit Lakes Tech	218-847-1341	Marketing	Staples Tech	218-894-3726
Building Contractors	St. Paul Tech	221-1365	Mill Writing	Eveleth Tech	218-744-3302
CAD	Anoka-Hennepin Tech	427-8359	Multimedia	LkSuperiorColl.Duluth	218-722-2801
CAD	Eveleth Tech	218-744-3302	Nurse Aide	Canby Tech	507-223-7252
Carpentry	Certified Network Admin St. Paul Tech	221-1365	Nursing	Pine Tech, Pine City	612-629-6764
Certified Network Engineer St. Paul Tech	221-1365	1-800-227-6029	Nursing Aide	Willmar Tech	320-235-5114
CNC Machinist	St. Paul Tech	221-1365	Office Administr. Support	St. Paul Tech	221-1365
CNC Machinist	Anoka-Hennepin Tech	427-8359	Plumbing, Inspection	Red Wing Tech	612-388-8271
Computer Job Skills	St. Paul Tech	221-1365	Precision MetalFabrication	St. Paul Tech	221-1365
Construction Safety	LkSuperiorColl.Duluth	218-722-2801	Real Estate	Eveleth Tech	218-744-3302
Customer Service	Austin CC	507-433-0532	Real Estate	St. Paul Tech	221-1365
Electronics	Eveleth Tech	218-744-3302	Real Estate	Worthington CC	507-657-3966
Emergency Medical Tech	Winona Tech	507-454-4600	Real Estate	Brainerd Tech	218-828-5365
Emergency Medical Tech	Hutchinson Tech	320-587-3636	Real Estate	Staples Tech	218-894-3726
Field Electrician	Eveleth Tech	218-744-3302	Secretarial	Austin CC	507-433-0532
Flexographic Printing	St. Paul Tech	221-1365	Small Business	Eveleth Tech	218-744-3302
Hazardous Material Tech	LkSuperiorColl.Duluth	218-722-2801	Small Business	Rochester CC	507-285-7217
Hazardous Waste Mgmt	LkSuperiorColl.Duluth	218-722-2801	Small Business	St. Paul Tech	221-1365
Health Career Skills	Rochester CC	507-285-7217	Supervision / Management	Austin CC	507-433-0532
Health Career Skills	Brainerd Tech	218-828-5365	Supervision / Management	Brainerd Tech	218-828-5365
Health Career Skills	Staples Tech	218-894-3726	Supervision / Management	Staples Tech	218-894-3726
Heating/Air Conditioning	Eveleth Tech	218-744-3302	Supervisory Management	DakotaTech, Rosemnt.	423-8369
Home Health Aide	Willmar Tech	320-235-5114	Telecommunications	DakotaTech, Rosemnt.	423-8369
Hospitality Management	Vermillion CC, Ely	218-365-7200	Vehicle Inspection	Detroit Lakes Tech	218-847-1341
Industrial Hygiene	Eveleth Tech	218-744-3302	Waste Management	Vermillion CC, Ely	218-365-7200
Industrial Sewing Machine	Red Wing Tech	612-388-8271	Welding	Eveleth Tech	218-744-3302
Insurance	Worthington CC	507-657-3966	Welding	St. Cloud Tech	320-654-5946
Insurance	Brainerd Tech	218-828-5365	Welding	Willmar Tech	320-235-5114
Insurance	Staples Tech	218-894-3726	Welding	Anoka-Hennepin Tech	427-8359

FOR PHONE NUMBERS & CUSTOMIZED TRAINING NOT MENTIONED ABOVE:

The above are a few examples of the customized training that's available. Many, many other courses are offered. Most state technical colleges, community colleges, & universities have introduced customized training programs, or have other short-term training. Some of the phone numbers above are direct to cus-

tomized training offices. To reach the customized training offices of technical colleges and community colleges not mentioned above, see the general phone numbers on pp. 62-63. For four-year colleges, see p. 69.

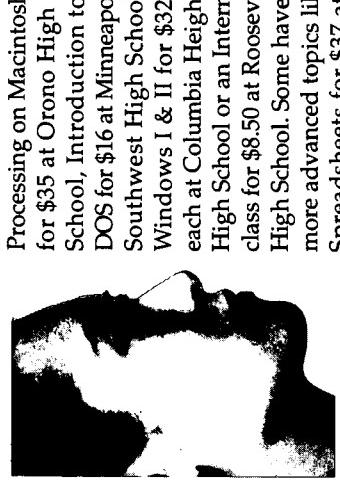
WHERE TO GET MORE INFORMATION ABOUT CUSTOMIZED TRAINING
Because customized training has grown

with special attention to the needs of unemployed and underemployed workers. The hope is that such a clearinghouse will help trainees and employers to easily access short-term training that's available. Eventually the resource center expects to include information on all customized training statewide. Look for the Information Resource Center in the last half of 1996.

COMMUNITY EDUCATION

THE ADVANTAGES OF MATURE WORKERS

Looking for an inexpensive way to update your job skills? Community education may be the answer. Wherever there is a school district, there is a community ed center, generally providing coursework for adults at a reasonable cost. Some coursework is career-oriented. A possible draw-back is that instructors are not necessarily trained as teachers. For information about community ed in your school district, call the district largest school districts: Minneapolis, St. Paul, Anoka, Rosemount, Apple Valley, Bloomington and Duluth.



Processing on Macintosh for \$35 at Orono High School, Introduction to DOS for \$16 at Minneapolis Southwest High School, Windows I & II for \$32 each at Columbia Heights High School or an Internet class for \$8.50 at Roosevelt High School. Some have more advanced topics like Spreadsheets for \$37 at Orono High School, Database Mgmt. (for creating and retrieving records) for \$40 at White Bear Lake High School, Pagemaker (a desktop publishing program) for \$25 at Minneapolis Edison High School.

Funding for community ed is based on the population of the community (districts receive \$6 per person), so the largest programs are in the largest school districts: Minneapolis, St. Paul, Anoka, Rosemount, Apple Valley, Bloomington and Duluth.

The amount of material covered in each course and the number of different courses offered seem to vary from center to center so it may be worthwhile to call around for the class best suited to you.

Many of the community education centers have free Adult Continuing Education courses such as G.E.D. preparation and math/English skills. Some, like Inver Grove Heights, Hopkins and Minneapolis, even offer Career & Job Skills, and Career Testing & Counseling. Often, free child care is available as well.

There are a variety of computer courses which may enhance your career. Most centers have computer courses for beginners and teach basic word processing, using one or more of Windows, Macintosh, and DOS. For example, there is Intro to WordPerfect for \$36 at Inver Grove Heights High School, Intro to Word

Processing on Macintosh for \$35 at Orono High School, Introduction to DOS for \$16 at Minneapolis Southwest High School, Windows I & II for \$32 each at Columbia Heights High School or an Internet class for \$8.50 at Roosevelt High School. Some have more advanced topics like Spreadsheets for \$37 at Orono High School, Database Mgmt. (for creating and retrieving records) for \$40 at White Bear Lake High School, Pagemaker (a desktop publishing program) for \$25 at Minneapolis Edison High School.

In addition, many of the centers offer classes in career development. For example, North St. Paul High School has a class on Career Decision Making and another on Jobs of the Future, each for \$5. Minneapolis Community College has classes on Resume Writing, Interviewing, and Job Searching, each \$15. Minneapolis South High has Good Jobs without a College Degree for \$8.

In the area of office finance, South Community School in Minneapolis has an Accounting Crash Course for \$17.75. Pratt Community Ed Center in Minneapolis has Bookkeeping Fundamentals for \$7.

Piece of cake! After all these years of crises, deadlines and plans that go awry from family situations to wars, you've learned a few coping mechanisms. You've survived by learning to adapt to new situations.

Flexibility and "grace under pressure."

Ability to get along well with co-workers and customers.

So remember, you and your peers are better educated, more highly trained and skilled than any generation before you. You are healthier, more active and have a longer life expectancy. You still have much to contribute to the workplace community and country.

A Word On Age and Employment

As an older worker, whether you're 40, 50, or 60, you bring a unique combination of skills, maturity and expertise to the workplace. You are part of a generation that has a strong positive work ethic. You bring valuable qualities to the labor force, and you have a performance record of demonstrated ability. You know how

Employers are looking for employees with these qualities:

Low turnover—employees who stay with them (eliminates need to train new employees).



to work with other people and how to handle responsibility as a result of years of experience. You may have become discouraged by attitudes some employers have toward older workers; there is age discrimination in the workplace. However, the very qualities employers want in any employee are the ones in which older workers excel. Some examples follow.

If you are an older worker, you can emphasize these qualities:

You're looking for a job with stability. On the average, older workers stay at a job three times longer than younger workers.

You're reliable, punctual, & miss fewer days.

You have good basic math, spelling and writing skills. You bring years of experience and mature judgment to the job.

You have superb self-management skills. You give a full day's pay. You take pride in and care about the quality of your work.

One of your best traits! You identify with the organization and feel a strong sense of responsibility to contribute.

You have years of experience learning "people" skills. You know how to cooperate, collaborate and negotiate.

Piece of cake! After all these years of crises, deadlines and plans that go awry from family situations to wars, you've learned a few coping mechanisms. You've survived by learning to adapt to new situations.

more active and have a longer life expectancy. You still have much to contribute to the workplace community and country.

—The AARP Midwest Regional Office

WHAT EMPLOYERS SAY THEY WANT FROM JOB APPLICANTS 77

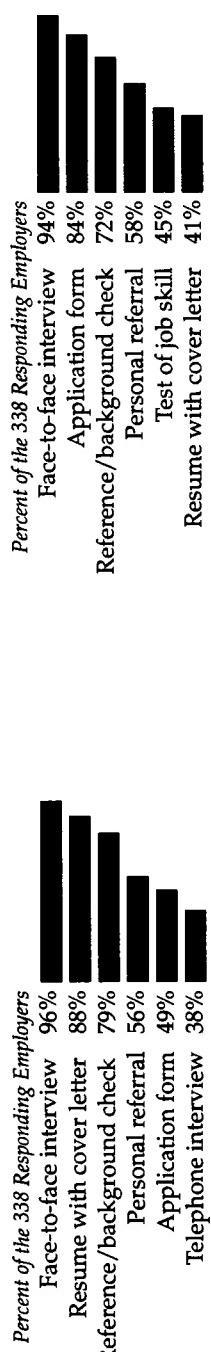


—What one group of Minnesota employers says about evaluating today's job applicants—

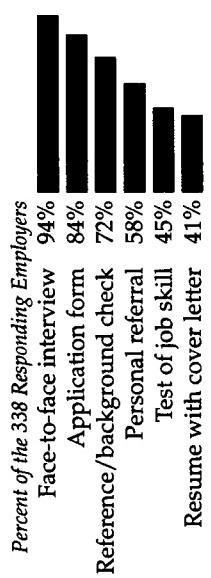
1. Most heavily relied upon METHODS TO SCREEN CANDIDATES for salaried and hourly positions.

Each employer chose five items from a list of eleven.

SALARIED WORKERS



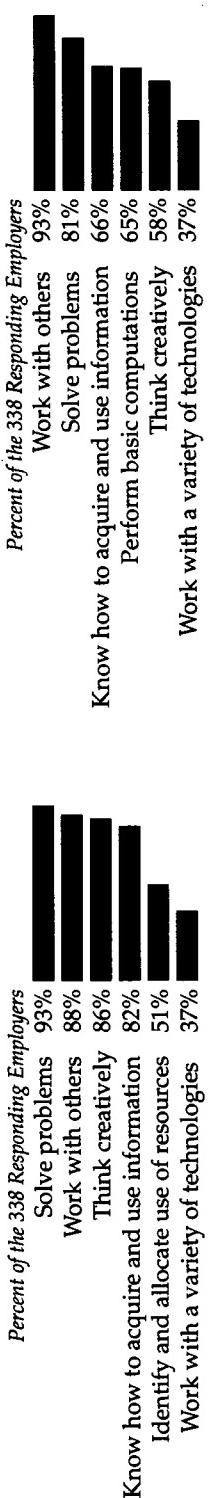
HOURLY WORKERS



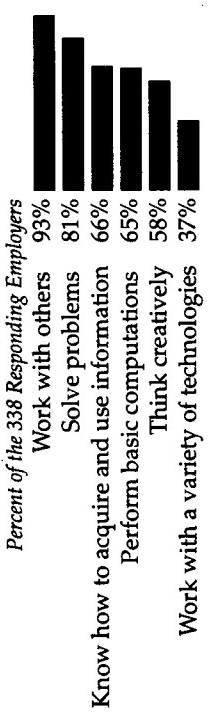
2. Most important THINKING SKILLS EMPLOYERS LOOK FOR when hiring candidates.

Each employer chose five items from a list of twelve.

SALARIED WORKERS



HOURLY WORKERS



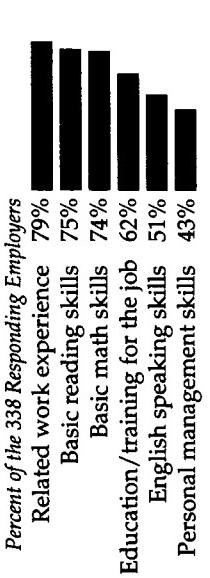
3. Most important QUALIFICATIONS EMPLOYERS LOOK FOR when hiring candidates.

Each employer chose five items from a list of nine.

SALARIED WORKERS



HOURLY WORKERS



WORKERS OVER 40
There are resources available for workers over 40. The Feb. 28, 1996, issue of *Twin Cities Employment Weekly* (published by the *Twin Cities Reader*) contained a long article on the topic of older workers. One of the resources mentioned is "Job Search Over 40: Selling to Your Strengths," a monthly workshop & a booklet by the same name produced by: Prototype Career Services, St. Paul 612-224-2856 or 1-800-368-3197.



Source: A survey conducted by the Employers Association, Inc. and the Minnesota Business Partnership in the summer of 1994. The survey was completed by 338 Minnesota companies, and

although 68% were manufacturers, companies *not* producing factory goods responded to the survey quite similarly to the manufacturers.

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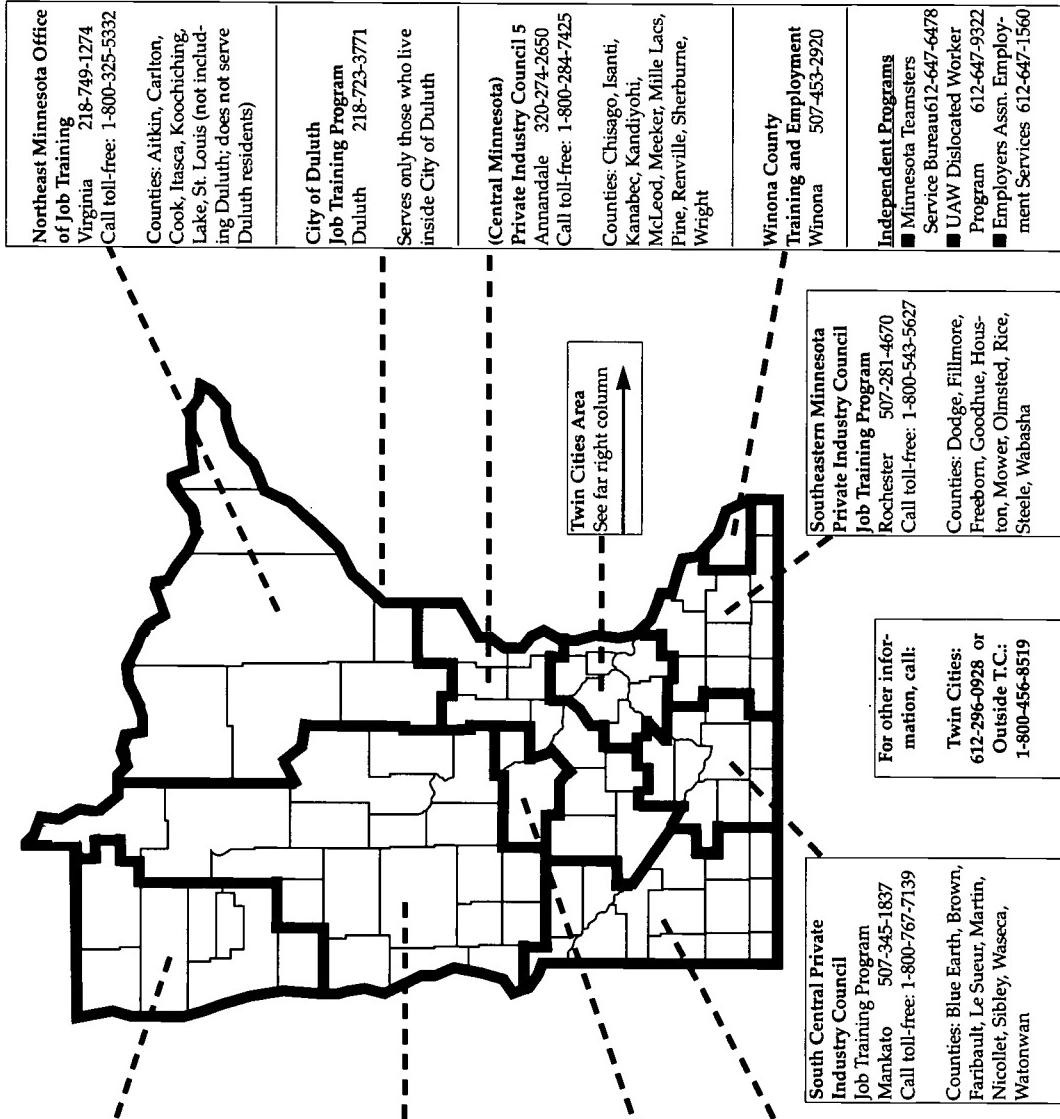
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